040-00001-03

# SAFARI DELUXE SERVICE MANUAL

Play Mechanix™

## OPERATORS MANUAL

1- SAFETY

2-SETUP AND OPERATION

3-AUDITS, ADJUSTMENTS AND DIAGNOSTICS

4-MAINTENANCE, WIRING AND TROUBLESHOOTING

5-PARTS

LIFE LIKE VIOLENCE MILD

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For parts or service, contact your local distributor, or:

Betson Enterprises
303 Paterson Plank Road
Carlstadt, New Jersey 07072-2307

BETSON

Main Phone: (201) 438-1300
Toll Free Phone: (800) 524-2343
Part Phone: (800) 828-2048

# Chapter 1. Safety

Safety instructions apply to operators and service personnel. Read these instructions before preparing the video game machine (VGM) for play. Other safety instructions appear throughout this manual.

| |
|---|
| WARNING: TRANSPORTING THE VIDEO GAME MACHINE (VGM). The VIDEO GAME MACHINE contains glass and fragile electronic devices. During transport, use appropriate care. Avoid rough handling. |
| WARNING: DISCONNECT POWER. Before servicing, moving or adjusting the VIDEO GAME MACHINE, turn off the VIDEO GAME MACHINE and unplug the AC line cord. Lethal voltages still exist in the game when power is disconnected. Use extreme caution while servicing. Servicing the game while powered can damage components and voids your warranty. |
| WARNING: AC GROUNDING. Avoid electrical shock! Do not plug in the VIDEO GAME MACHINE until you have verified a properly grounded AC outlet is available for use. Only use a grounded three-wire outlet. Do not use an adapter that removes the ground connection. Do not cut off the ground pin of the line cord. |
| WARNING: AVOID ELECTRICAL SHOCKS. This VIDEO GAME MACHINE does not use an isolation transformer. Disconnect power before servicing. Lethal voltages still exist in the game while power is disconnected. Use extreme caution while servicing. Verify the game has a working ground connection. Do not use VIDEO GAME MACHINE and disconnect power if the unit has water damage. |
| WARNING: HANDLE FLOURESCENT TUBE AND CRT WITH CARE. If you drop a fluorescent tube or CRT and it breaks, it will implode! Shattered glass from the implosion can travel extreme distances and cause bodily harm. Proper procedures must be used when handling broken materials. These items can contain hazardous materials such as mercury or lead. |
| WARNING: CHECK POWER SELECTOR, LAMP AND FAN. Before installing the VIDEO GAME MACHINE, verify that the VIDEO GAME MACHINE is properly set for the AC line voltage of the installation site. On the computer, notice the 115/230 VAC selector switch. Set this switch for the correct line voltage at the installation site. Verify the fluorescent lamp rating. The rating must match the line voltage at the installation site. |
| WARNING: USE PROPER FUSE. Avoid electrical shock! Disconnect power to the VIDEO GAME MACHINE before servicing. Fuse replacement by qualified service technician only. For continued protection replace a fuse with identical rated fuse. |
| WARNING: ATTACH CONNECTORS PROPERLY. Be sure all connectors mate properly. If connectors do not slip in easily, do not force them. Keyed connectors only connect one way. Check for correct orientation. |

WARNING: USE EXTREME CARE WHEN HANDLING COMPONENTS. The VIDEO GAME MACHINE device contains numerous components that are very sensitive to handling, environmental and ESD(Electro Static Discharges) events. The computer contains sensitive components. Do not handle the computer roughly. Before servicing call your distributor and inquire about the computer's warranty. Utilize proper ESD procedures when servicing the VIDEO GAME MACHINE or components of the VIDEO GAME MACHINE. Do not expose the VIDEO GAME MACHINE or any components of the VIDEO GAME MACHINE to adverse environmental conditions, including but not limited to extreme temperatures or excessive moisture.

WARNING: HAZARD TO EPILEPTICS. A small portion of the population has an epileptic condition that may cause seizures. Affected persons experience seizures while watching some television pictures or playing certain video games. People who have not had seizures may still have an undetected epileptic condition. If anyone in your family has experienced epilepsy symptoms (seizures or loss of awareness), consult your physician before using video games.While children play video games, a parent should observe. Be alert to the following symptoms: Dizziness, altered vision, eye or muscle twitching, involuntary movements, loss of awareness, disorientation, or convulsions. If you or your child experiences these symptoms, discontinue use immediately and consult your physician.

WARNING: POWER CORD REPLACEMENT. If the power cord is damaged or missing it must be replaced by an identical line cord as supplied by the manufacturer or authorized service agent.

WARNING: WATER JET. Do not install or operate game within operating perimeter of a water jet. Do not clean VIDEO GAME MACHINE using water jet.

CAUTION
Failure to properly operate this machine could result in malfunction or accident. Before operating your video game device, read this manual. Operate the machine according to instructions in this manual.

Keep this manual available and ready for use.
If the machine fails to function properly, immediately turn off the machine and unplug the AC line cord. Contact your local distributor. Your warranty lasts 60 days from your purchase date.

CAUTION

For reasons such as performance, this product’s specifications might change without notice.

Federal patent, copyright and other intellectual property laws protect the content, devices and design of the VIDEO GAME MACHINE.

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# CHAPTER 2. SETUP AND OPERATION

## Product Specifications

### ELECTRICAL POWER

Domestic
International Users
Japan

120 VAC @ 60 Hz, 5 amps
240 VAC @ 50 Hz, 2.5 amps
100 VAC @ 50 Hz, 5 amps

### DC POWER FUSE GUIDE

| | |
|---|---|
| +5 VDC | 2 AMP Slow Blow |
| +12 VDC | 7 AMP Slow Blow |

### TEMPERATURE

32° F to 100° F
(0° C to 38° C)

### HUMIDITY

Must not exceed 95% relative humidity.

### DELUXE MODEL, CABINET DIMENSIONS

Height = 79.9in.(2.0m)
Depth = 68.9in (1.75m)
Width = 29.5in.(0.75m)

### DELUXE MODEL, CABINET WEIGHT

Weight = 700lbs(317.5Kg)

WARNING. Use extreme care when moving or servicing the game cabinet. Moving or servicing the game by qualified service technicians only. Read this manual before you connect power to the VIDEO GAME MACHINE.

[ ] 1.Make sure the shipping crate is on a flat stable surface.

[ ] 2.Using an appropriate tool, cut the banding straps.

[ ] 3.Remove the cardboard lid from the top of the shipping crate.

[ ] 4.Lift off the large cardboard container that surrounds the VIDEO GAME MACHINE. Do not use a sharp tool to cut the cardboard container the VIDEO GAME MACHINE is enclosed.

[ ] 5.Remove shipping cleats.

[ ] 6.Remove VIDEO GAME MACHINE from the shipping pallet. Seek help as required by your situation.

[ ] 7.Remove packing material from the guns.

[ ] 8.Place the VIDEO GAME MACHINE in a suitable play or service area.

[ ] 9.For safety reasons, make sure the game cabinet is level and stable. Adjust the leg levelers as necessary. Leveling the cabinet is a job for two or more people. Seek help as required by your situation.

[ ] 10.Check the AC line cord for visible signs of damage. Pay particular attention to the plug and line cord insulation.

[ ] 11.Check for shipping damage to the following:
Gun assembly: Left and right guns, gun holders, and cable
Cabinet glass: Marquee and monitor
Cabinet back door
Cabinet coin door
Cabinet and gun decals
[ ] 12.Remove the coin door key from the coin return chute.

[ ] 13.Open the top coin door. Locate the key for the back door and the cash box.

[ ] 14.Open the cash box and remove the plastic tub. Remove the items inside the tub. The items enclosed will include this service manual, AC line cord, bag of tools and a warranty card.

[ ] 15.Verify that a proper working AC outlet is available for use. Verify the AC outlet voltage. Verify the AC outlet ground connection is present and working.

[ ] 16.Verify the VIDEO GAME MACHINE is setup for the correct AC voltage. This involves opening the VIDEO GAME MACHINE back door. Use extreme caution when inside the game. Utilize appropriate ESD and safety procedures. Verify that the computer voltage selector switch is properly set to match the AC outlet voltage. Verify the fluorescent fixture in the marquee (top front of the VIDEO GAME MACHINE) is the correct voltage. Verify that the fan is the proper voltage rating. This will involve removing the marquee.

[ ] 17.Once the VIDEO GAME MACHINE voltage has been set/verified and the AC outlet ground and voltage has been verified, plug in the VIDEO GAME MACHINE line cord into the AC outlet.

[ ] 18.On the back of the game cabinet, locate the game AC power switch. The switch is on the bottom left side (you facing the back side of the VIDEO GAME MACHINE). Turn on the VIDEO GAME MACHINE.

[ ] 19.Verify that the cooling fan located on the bottom back of the VIDEO GAME MACHINE is working. If not, turn off and disconnect the AC line cord from the VIDEO GAME MACHINE. Refer to the diagnostic section of this manual for help.

[ ] 20.Verify that the VIDEO GAME MACHINE or any component of the VIDEO GAME MACHINE is not excessively hot or is emitting any foul odors. If so, turn off and disconnect the AC line cord from the VIDEO GAME MACHINE immediately. Refer to the diagnostic section of this manual for help.

[ ] 21.While loading you should see information on the video display. If not, see the diagnostic section of this manual.

[ ] 22.Once the VIDEO GAME MACHINE software is loaded, it may have the gun calibration screen posted. If not, enter the service menu by pressing the TEST button located on the bracket inside the top coin door.

[ ] 23.Select GUN CALIBRATION.

[ ] 24.Calibrate the guns. See procedure listed next.  See the diagnostic section of this manual if errors occur.

[ ] 25.Enter the SWITCH TEST menu. Verify that all the VIDEO GAME MACHINE switches function.

[ ] 26.Enter the SCREEN TEST menu. Verify that the video is acceptable.

[ ] 27.Enter the SOUND TEST menu. Verify the audio works and is not distorted.

[ ] 28.Enter the COIN METER TEST menu. Verify the operation of the coin meter.

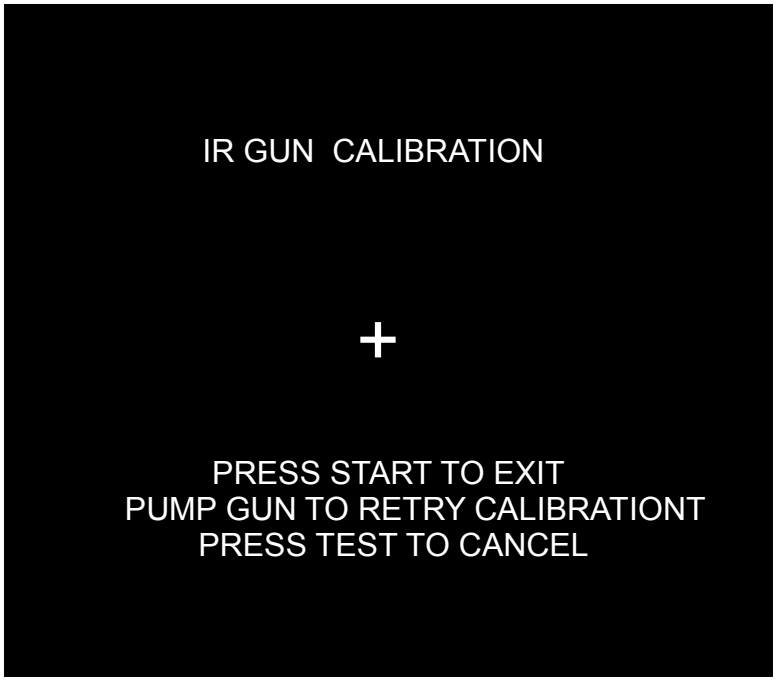
[ ] 29.Enter the START BUTTON LAMPS menu. Verify that the lamps of the buttons work correctly.

[ ] 30.Enter the WATCHDOG TEST menu. This test will cause the VIDEO GAME MACHINE to re-boot.

[ ] 31.Upon a successful re-boot of the VIDEO GAME MACHINE, you are ready to adjust your game for operation. Refer to Chapter 3 for this information.

## Gun Calibration Menu

From the Main Menu, select Gun Calibration. The Gun Calibration Menu opens. As part of VIDEO GAME MACHINE setup, you must calibrate the guns. Periodic gun calibration also allows you to optimize and verify gun performance. We recommend calibrating the guns every week of operation. Properly calibrated guns improve your collections.




## HOW TO CALIBRATE

**NOTICE.** During gun calibration, the gun muzzle must be two feet from the monitor. You must calibrate each gun separately. The left START button accepts left gun calibration and the right START button accepts right gun calibration respectively. It is important to calibrate both guns at the same time. Do not calibrate one gun and then cancel calibration while working with the second gun. This will cause the calibration to not be updated for either gun.

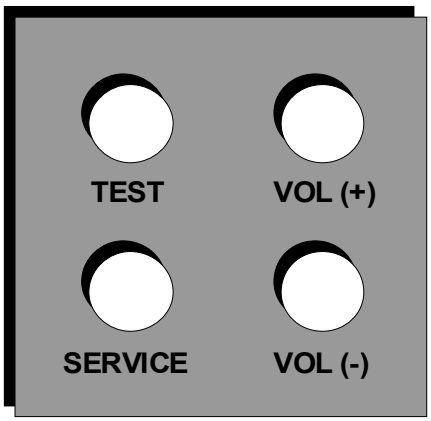
A “+” sign appears in the center of the screen. Aim the gun at the “+” sign and shoot. Accept calibration by pressing corresponding player gun START button .

When you’re satisfied with the calibration of the gun, press the START button for the gun that was just calibrated. For example, to accept calibration for the left gun, press the left START button. With the second gun, repeat the calibration procedure.

Once the calibration for a gun is accepted, the gun tracking screen for that gun will appear. This gives the opportunity for additional gun calibration verification before moving on.

# Chapter 3. Adjustments, Audits & Diagnostics

Diagnostic Menu System
Locate the Service Button Panel. It mounts inside the top coin door area. To access the MAIN MENU of the operator's screen, press the TEST button.




## Menu Navigation

| BUTTON | ACTION |
|---|---|
| TEST | ENTER MAIN MENU |
| RIGHT START or TEST | ENTER OR SELECT ITEM |
| GUN TRIGGER or LEFT START or VOL DOWN | SCROLL DOWN |
| GUN PUMP or VOLUMN UP | SCROLL UP |

THE EASIEST WAY TO NAVIGATE through menus is to use the guns and START buttons. To move downward through menu rows, click the gun trigger. To move upward through menu rows, snap the gun pump lever. The active row highlights. To select a menu row, click the RIGHT START button.

ON ONE-COLUMN MENUS, clicking RIGHT START usually opens a new menu. To return to the previous menu, highlight EXIT. Then click RIGHT START. When you exit from the Main Menu, the VIDEO GAME MACHINE returns to Game Mode.

ON TWO-COLUMN MENUS, the RIGHT START button also allows you to change columns. The right column contains settings. Clicking RIGHT START once moves the highlight to the right column. Now use the gun to cycle through values. To save your change, click RIGHT START.

GUN CALIBRATION requires you to use LEFT START to accept left gun calibration. Also in gun calibration, use RIGHT START to accept right gun calibration. Exit rules for some other menus vary. Follow screen directions.

IF THE GUNS FAIL, you can still access the menu system. Use LEFT START or VOL DN instead of TRIGGER. Use VOL UP instead of PUMP. You'll find the VOL buttons inside the coin door, on a switch bracket.

NOTICE. This chapter includes special page headings. The headings indicate the menu you're in, plus the one you just came from. The headings also show how many menus you've drilled down. This way, you know which parent menu associates with the sub-menu you're looking at.

# Main Menu

When you press the TEST button, the Main Menu appears. The Main Menu presents a number of selections that you can choose.

## Procedure

A BAR APPEARS ON SCREEN and highlights your selection. Use TRIGGER to move the highlight bar up. Use PUMP to move the bar down. To enter your selection, press either START button. After you press START, the screen displays the menu that corresponds to your selection.

THE IDEA IS TO “DRILL DOWN” to a terminal menu. At that menu, you make an adjustment, read audit totals or test part of the VIDEO GAME MACHINE.

HOW DO YOU KNOW WHERE YOU ARE? How do you know where you’ve come from? Use the Menu System Map on the next page. This map covers all the submenus below the Main Menu. Also, don’t forget the tables at the top of each menu page. These tables indicate each menu’s path back to the Main Menu.

# Menu System Map

| OPERATOR ADJUSTMENT | GUN CALIBRATION |
|---|---|
| Game Adjustments<br>Violence<br>Big Buck Girls<br>Skill Level<br>Initials Type<br>Coin Adjustments<br>Freeplay<br>Currency Type<br>Currency Unit Value<br>Coin 1 Value<br>Coin 2 Value<br>Coin 3 Value/DBV Pulse<br>Maximum Credits<br>Bonus Award<br>Units for Bonus<br>Player Cost<br>Volume | [No submenus] |
| **GENERAL AUDITS** | **RESET MENU** |
| Game Audits<br>System Audits<br>Game Purchase Audits<br>Adventure Purchase Audits<br>Bonus Only Audits<br>Coin Audits | Reset Game Audits<br>Reset Adventure Audits<br>Reset Credits<br>Reset Coin Counters<br>Reset Adjustments<br>Reset High Scores<br>Factory Reset |
| **HIGH SCORES** | **SYSTEM TEST MENU** |
| Sable Adventure<br>Kudu Adventure<br>Wildbeest Adventure<br>Gemsbok Adventure<br>Afr.Buffalo Adventure<br>Perfect Streak<br>Perfect Sites | Version List<br>Switch Test<br>Screen Tests<br>Color Adjustment<br>Screen Adjustment<br>Color Screens<br>Sound Test<br>File Test<br>DIP-switch Settings<br>Start Button Lamps<br>Watchdog Test<br>Gun Tracking Test |

## Operator Adjustments Menu

From the Main Menu, select Operator Adjustments. The Operator Adjustments Menu opens. From here, you can select gameplay, coinage or sound adjustments. Then go to the selected menu and tailor the game to your installation.

## Procedure

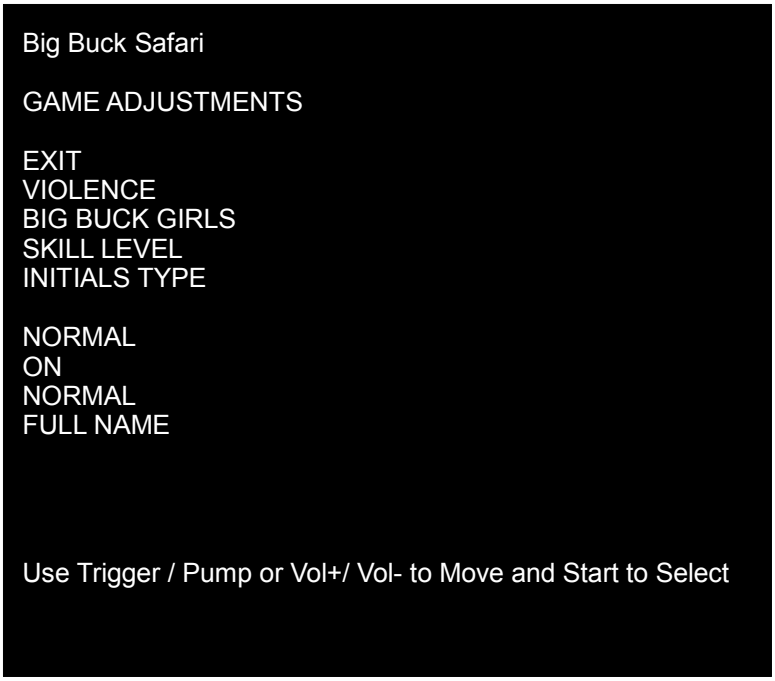
Select an option with the highlight bar.
The TRIGGER moves the highlight bar down the left column.
The PUMP moves the highlight bar up the left column.
On one-column menus, select an item by pressing START.
On two-column menus, you can change settings from the right column. Switch to the right column by pressing START.
On menus with settings, change a setting with the TRIGGER or PUMP.
To accept the change, press START. The left column becomes active again.

## Adjustments Can Improve Collections

Adjustments allow you to customize the performance of the game. Each variable on an adjustment menu changes an aspect of game or game appearance. Optimizing these settings should result in ongoing player interest and game earnings. How do you know what works best? You monitor the effects of your adjustments. Compare audit information before and after you make changes. Then you know which changes increase or sustain your earnings.

# Game Adjustments Menu

From the Main Menu, select Operator Adjustments. The Game Adjustments Menu opens. From here, you can select several gameplay aspects. You can also make adjustments from this screen.




## Settings, Defaults & Choices

| Setting Name | Description | Default | Choices |
|---|---|---|---|
| Violence | Changes visual effect of hit on animal.<br>NORMAL. Some blood appears on shot animals. Red star appears on kills.<br>NO BLOOD. No blood appears on shot animal. In No Blood Mode, small blue star replaces red star on kills. | Normal | No Blood / Normal |
| Big Buck Girls | Normally, Big Buck Girls appear in Attract Mode and Gameplay Mode. This setting allows operator to permit or eliminate images of Big Buck Girls. | On | ON: Big Buck Girls Appear |
| Skill Level | Adjusts level of game difficulty by changing way shotgun reloads after each trigger pull.<br>EASY. After each trigger pull, shotgun reloads itself without pumping. To fire another shot, pull trigger again.<br>NORMAL. After each trigger pull, reload by pumping. | Normal | Normal / Easy |
| Initial Type | Adjusts how player can enter name.<br>FULL NAME. Players can enter their full names on two screens. First name screen allows up to 13 characters. Last name screen allows up to 15 characters.<br>INITIALS. Players can enter up to three characters. | Full Name | Full Name / Initials |

# Coin Settings Menu

From the Operator Adjustments Menu, select Coin Adjustments. The Coin Settings Menu opens. From here, you can select and change coin slot and DBV pricing. These settings don't set the game price. Instead, these settings specify the coin type that a coin slot accepts. The smallest acceptable coin is 25 cents. In the US, 25 cents is the typical setting for both coin values. The DBV value is also a multiple of 25 cents. The typical US DBV value is $1.

Big Buck Safari
COIN SETTINGS
EXIT
FREEPLAY OFF
CURRENCY TYPE DOLLAR
CURRENCY UNIT VALUE $0.25
COIN 1 VALUE $0.25
COIN 2 VALUE $0.25
COIN 3 VALUE PER BILL PULSE $0.25
MAXIMUM CREDITS $500.00
BONUS AWARD $0.000
UNITS FOR BONUS $0.00
Use Trigger / Pump or Vol+/ Vol- to Move and Start to Select

| SETTING NAME | DEFAULTS | CHOICES |
|---|---|---|
| FREEPLAY | OFF | ON/OFF |
| CURRENCY TYPE | DOLLAR | |
| CURRENCY UNIT VALUE | $0.25 | |
| COIN 1 VALUE | $0.25 | $0.25 - $63.75 IN $0.25 INCREMENTS |
| COIN 2 VALUE | $0.25 | $0.25 - $63.75 IN $0.25 INCREMENTS |
| COIN 3 VALUE/DBV PULSE | $0.25 | $1,$5,$10 OR $20 |
| MAX CREDITS | $500.00 | $125 - $500 |
| BONUS AWARD | $0.00 | |
| UNITS FOR BONUS | $0.00 | |

FREEPLAY MODE. This mode requires no coins. Players can start a game just by pressing START. Use the Freeplay Mode for promotions or for noncommercial applications. Freeplay Mode is also very useful for testing the machine. Select Freeplay with the TRIGGER and PUMP. Then save your setting by pressing START.

COIN 1 VALUE & COIN 2 VALUE allow you to set coin slot pricing. With the TRIGGER and PUMP, select Coin 1 Value or Coin 2 Value. The highlight bar indicates option selection. TRIGGER moves the highlight bar down the left column. PUMP moves the highlight bar up the left column. Enter your setting by pressing START. Now, the highlight bar moves to the right column. Here, use TRIGGER and PUMP to make changes. Save your setting by pressing START.

VALUE PER BILL PULSE allows you to set DBV pricing. The bill validator (DBV) translates bills into electronic pulses. This setting determines one bill's value in pulses. The number of pulses is always an integer. The smallest acceptable coin value equals one pulse. In a VIDEO GAME MACHINE with US coin mechanisms, one pulse is worth a quarter. Typically, the DBV value is $1.00, or equal to four coins. In that case, the DBV pulses the coin line four times.

MAXIMUM CREDITS is the maximum number of unplayed credits that the VIDEO GAME MACHINE allows.

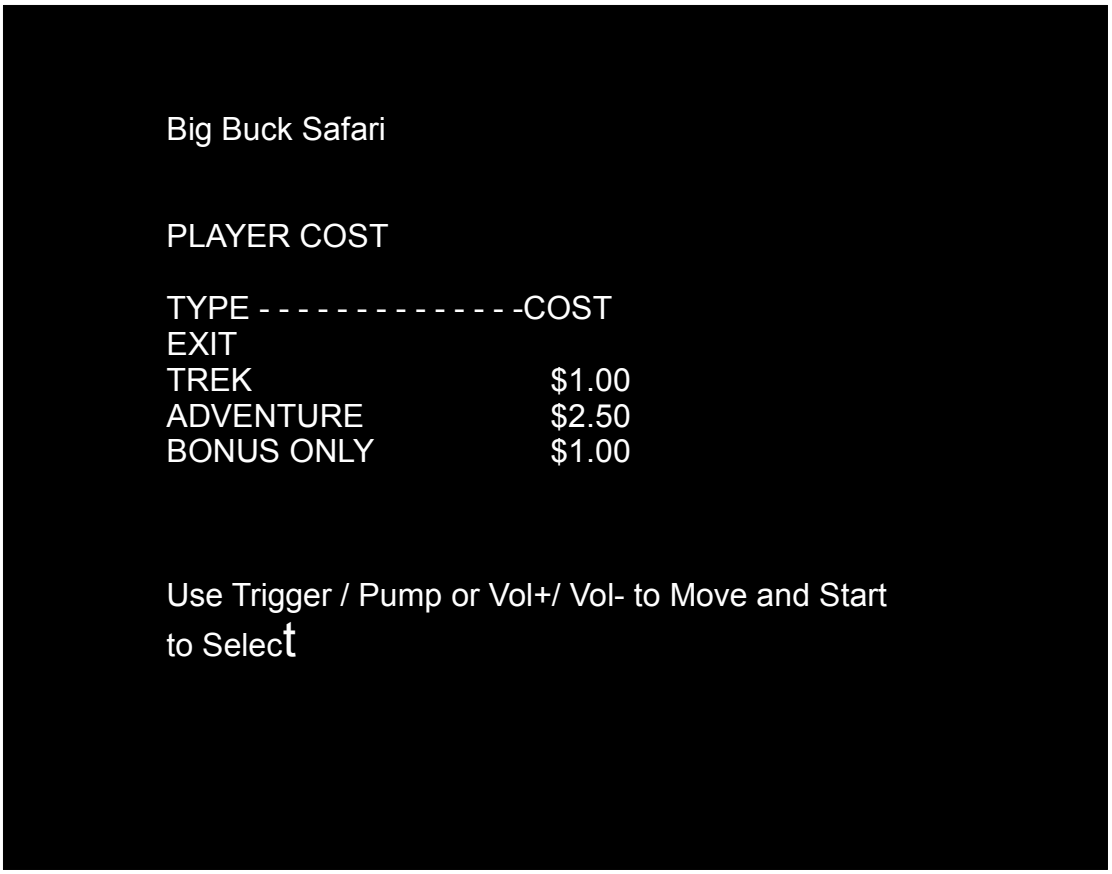
BONUS AWARD is the minimum purchase amount needed to earn bonus monetary units.

UNIT FOR BONUS AWARD is the monetary unit amount given when BONUS AWARD purchase amount is met.

# Player Cost Menu

From the Operator Adjustments Menu, select Player Cost. The Player Cost Menu opens. This screen indicates the costs for various levels of play:

A trek allows the player to hunt at five sites.
An adventure is three treks.
A bonus round allows an additional hunting opportunity.

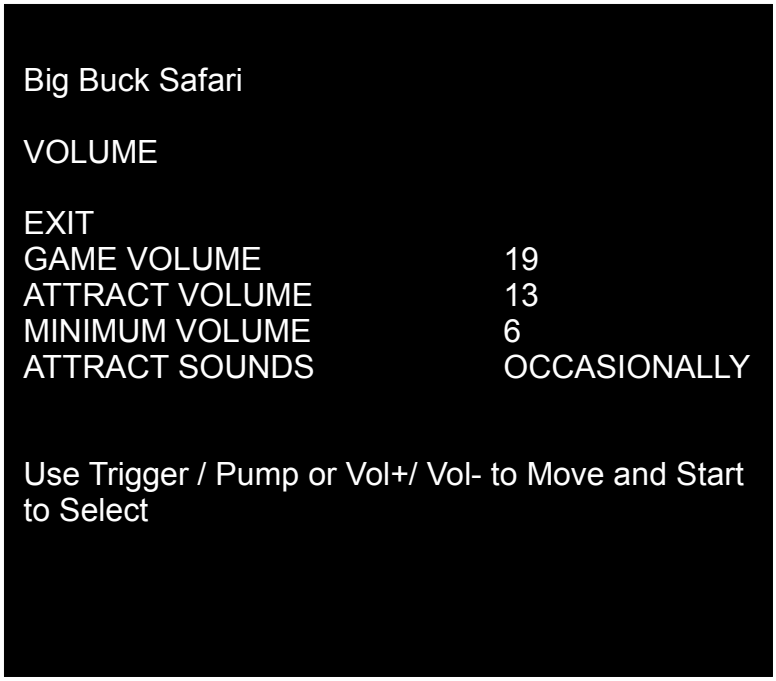

Big Buck Safari
PLAYER COST
TYPE - - - - - - - - - - - - - - -COST
EXIT
TREK $1.00
ADVENTURE $2.50
BONUS ONLY $1.00
Use Trigger / Pump or Vol+/ Vol- to Move and Start
to Select

# Settings, Defaults & Choices

| SETTING NAME | DEFAULT | CHOICES |
|---|---|---|
| TREK | $1.00 | $0.25 - $63.75 IN $0.25 INCREMENTS |
| ADVENTURE | $2.50 | $0.25 - $63.75 IN $0.25 INCREMENTS |
| BONUS ONLY | $1.00 | $0.25 - $63.75 IN $0.25 INCREMENTS |

# Volume Menu

From the Operator Adjustments Menu, select Volume. The Volume Menu opens. Use this menu to set sound volume levels for game features.




| SETTING NAME | DEFAULT | CHOICES |
|---|---|---|
| GAME VOLUME | 18 | 0 -31 |
| ATTRACT VOLUME | 13 | 0 -31 |
| MINIMUM VOLUME | 6 | 0 -31 |
| ATTRACT SOUNDS | OCCASIONALLY | OFF / OCCASIONALLY / ALWAYS |

HOW TO MAKE SETTINGS. Don't look for the volume pot! Big Buck Safari uses digital volume settings, rather than analog ones. Now, you can separately adjust the volume of Gameplay Mode and Attract Mode. You can make your volume adjustments from the screen. To select a setting from the left column, use either gun's TRIGGER or PUMP. Then switch to the right column by pressing START. Locate the value that you want by using TRIGGER and PUMP. Then save this value by pressing START.

GAME VOLUME allows you to change game sound volume. You can also reduce the volume to zero. The Game Volume setting only affects sound levels during the game.

ATTRACT VOLUME allows you to change Attract Mode sound volume. Attract Mode is the mode of operation between games. This mode advertises the VIDEO GAME MACHINE to prospective players.

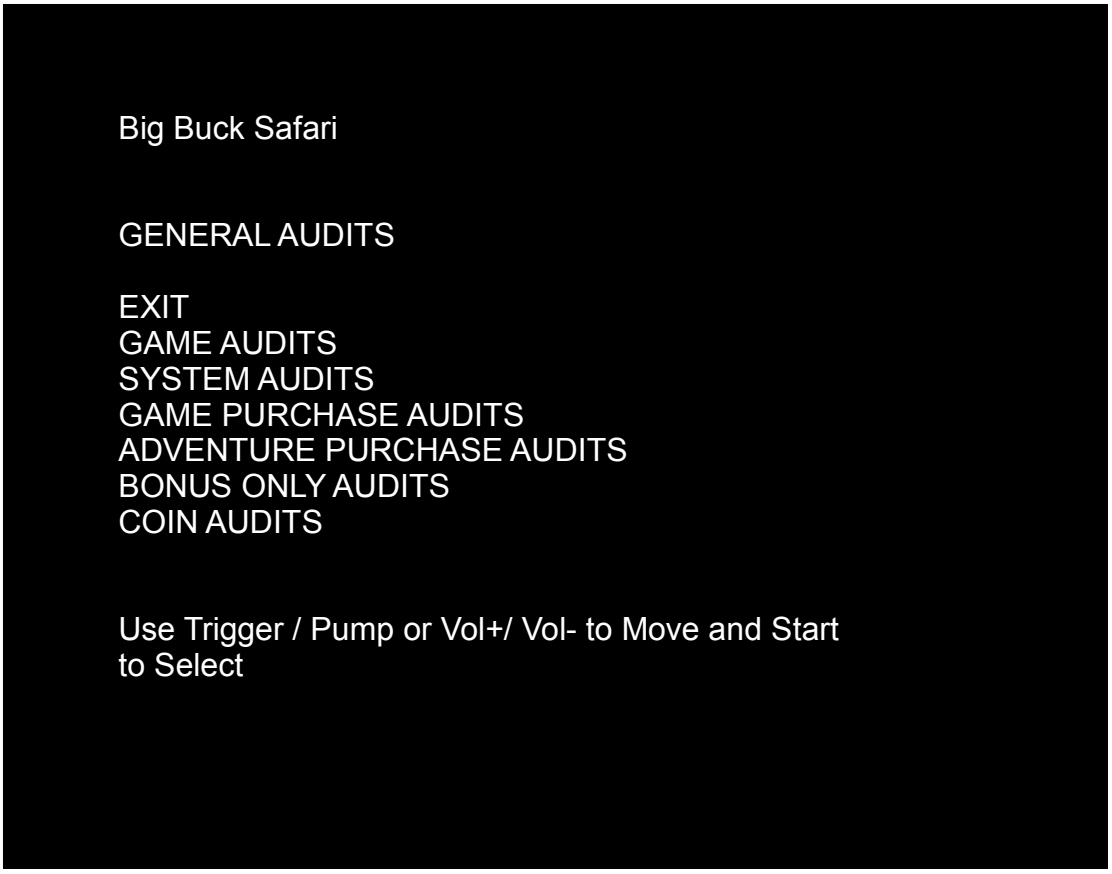
MINIMUM VOLUME is the lowest that you can set any of the other volume settings.

ATTRACT SOUNDS allows you to change how often attract sounds come on. Usually, the location determines the appropriate interval between Attract Mode Sounds. Frequent sounds may be more appropriate to an arcade than to a lobby location.

**NOTICE.** During gameplay, you can adjust game volume with the VOL+ and VOL- buttons. You'll find them inside the coin door. These buttons also allow you to adjust Attract Mode volume during Attract Mode.

# General Audits Menu

From the Main Menu, select General Audits. The General Audits Menu opens. This is the opening screen for the VIDEO GAME MACHINE's bookkeeping totals. From here, you can select an audit and go to that audit's menu.

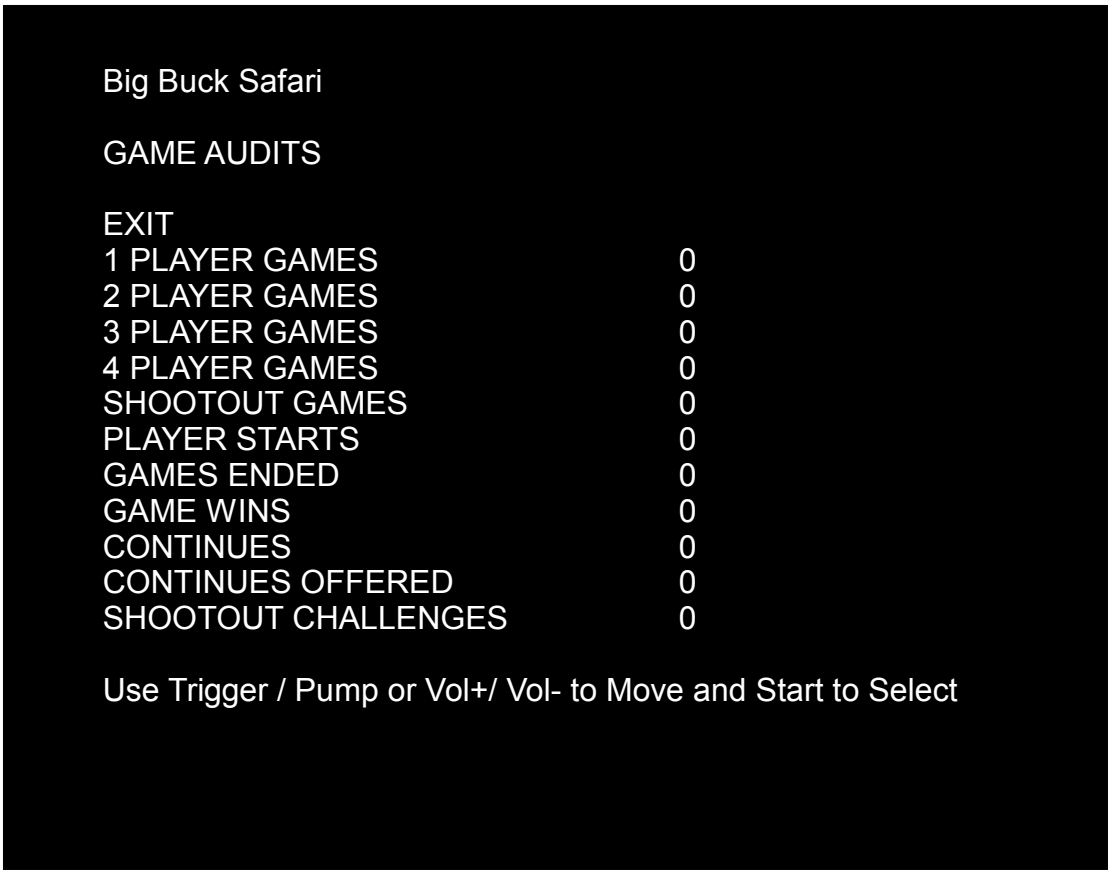



# Applications for General Audits

Use game audit screens to assess game performance.
Use audit data to determine options such as game difficulty and the free game award.
Use audits to help you to maximize game earnings.
Use audit information to help you to detect intermittent problems.

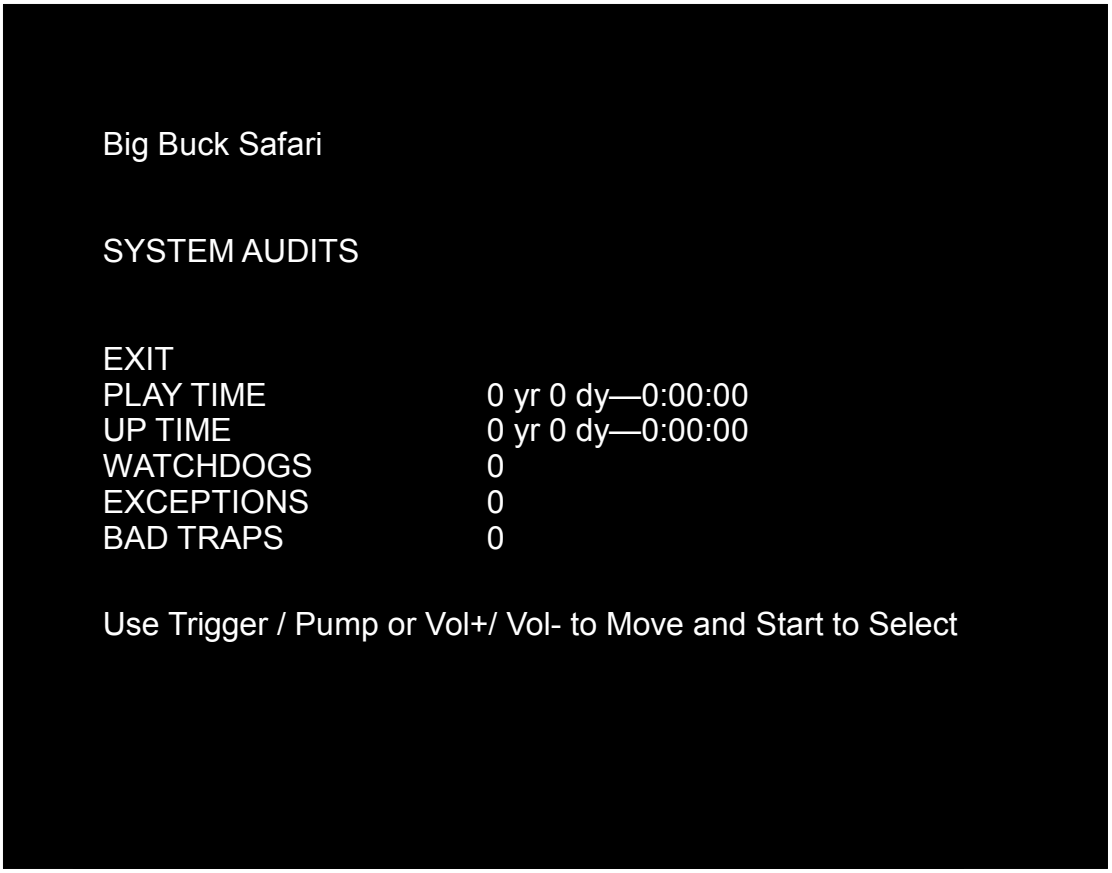
# Game Audits Menu

From the General Audits Menu, select Game Audits. The Game Audits Submenu opens.



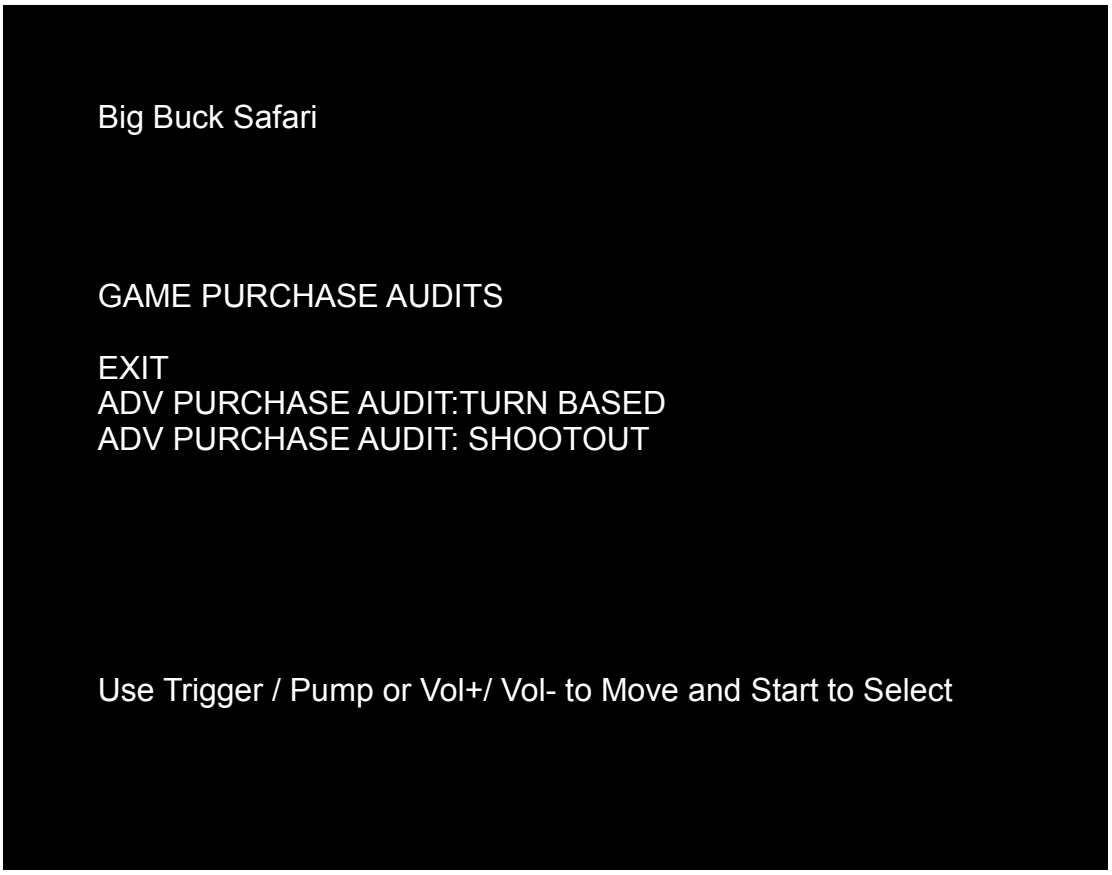
# System Audits Menu

From the General Audits Menu, select System Audits. The Game Audits Submenu opens.


Big Buck Safari
SYSTEM AUDITS
EXIT
PLAY TIME 0 yr 0 dy—0:00:00
UP TIME 0 yr 0 dy—0:00:00
WATCHDOGS 0
EXCEPTIONS 0
BAD TRAPS 0
Use Trigger / Pump or Vol+/ Vol- to Move and Start to Select

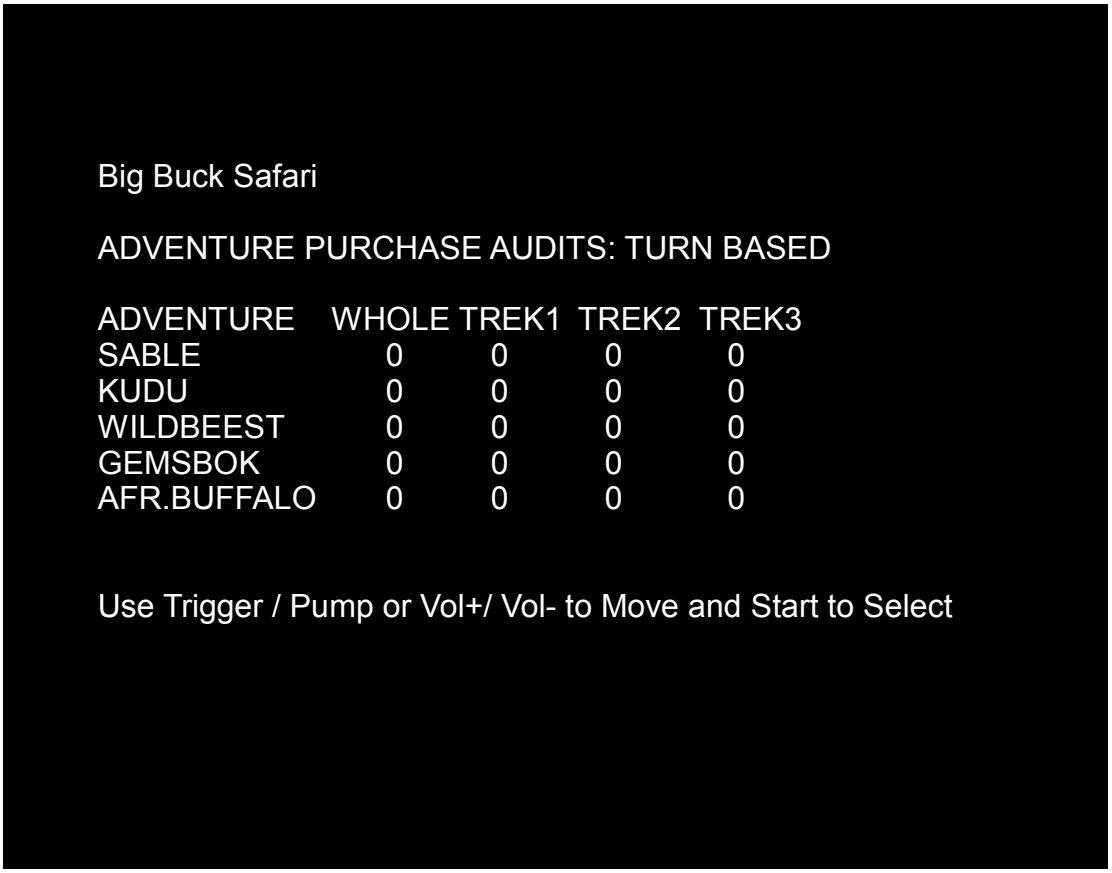
# Game Purchase Audits Menu

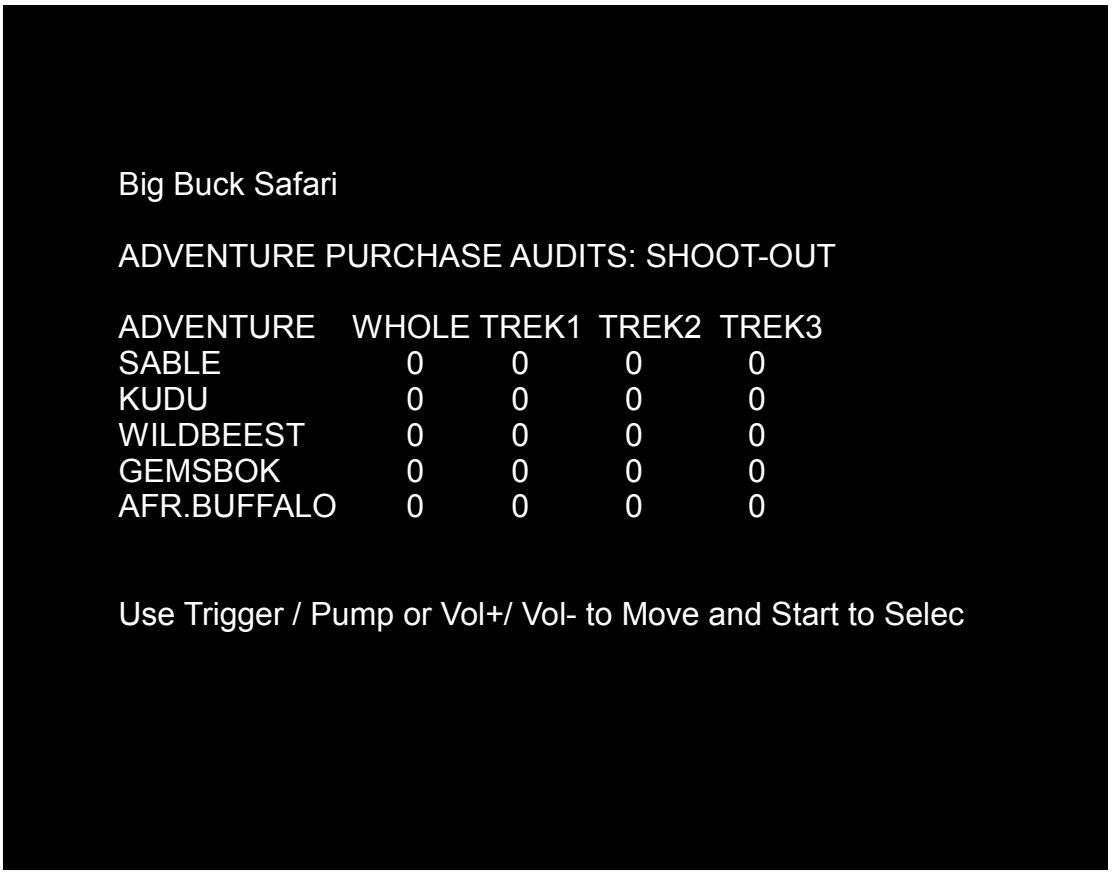
From the General Audits Menu, select Game Purchase Audits. Select Local Game Purchase Audits Menu and the Game Purchase Audits Menu Appears


Big Buck Safari
GAME PURCHASE AUDITS
EXIT
ADV PURCHASE AUDIT:TURN BASED
ADV PURCHASE AUDIT: SHOOTOUT
Use Trigger / Pump or Vol+/ Vol- to Move and Start to Select

# Adventure Purchase Audits: Turn-Based Menu or Shootout

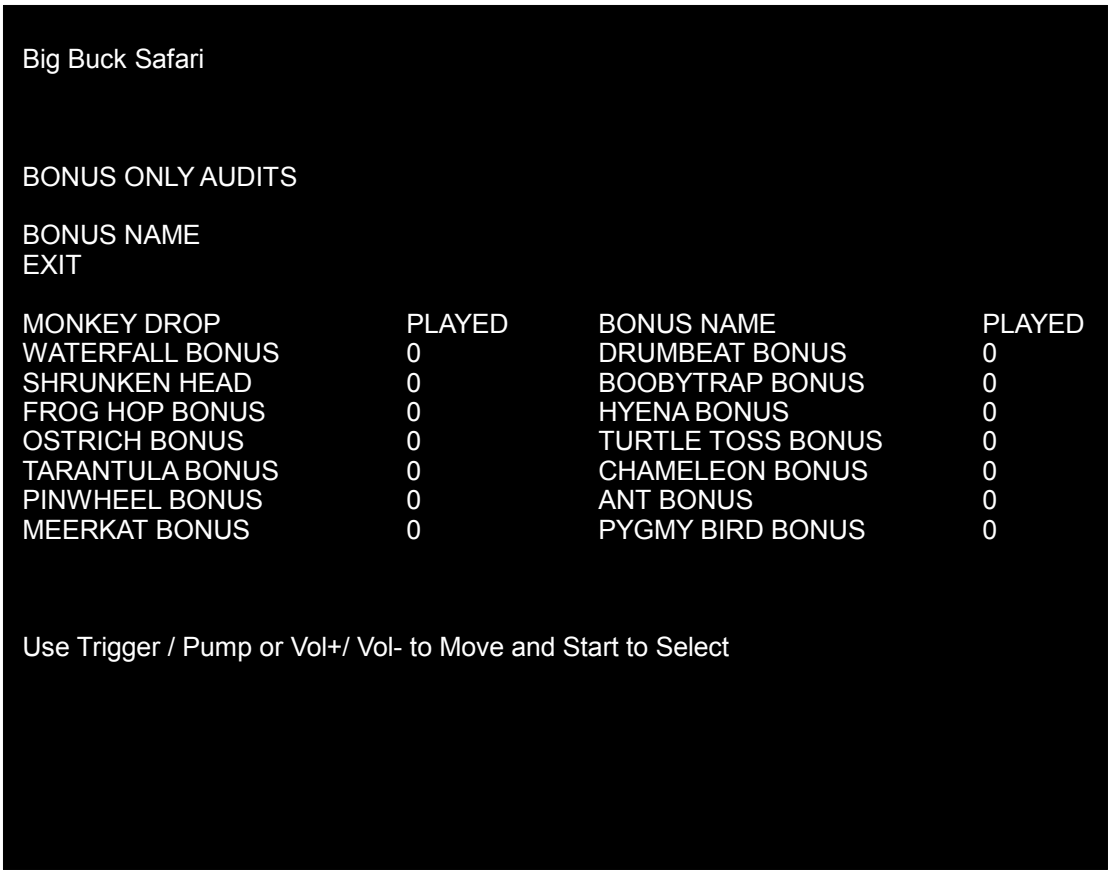
From the Game Purchase Audits Menu, select Adventure Purchase type,Turn-Based or Shootout. The Adventure Purchase Audits Menu opens.


Big Buck Safari
ADVENTURE PURCHASE AUDITS: TURN BASED
ADVENTURE WHOLE TREK1 TREK2 TREK3
SABLE 0 0 0 0
KUDU 0 0 0 0
WILDBEEST 0 0 0 0
GEMSBOK 0 0 0 0
AFR.BUFFALO 0 0 0 0
Use Trigger / Pump or Vol+/ Vol- to Move and Start to Select


Big Buck Safari
ADVENTURE PURCHASE AUDITS: SHOOT-OUT
ADVENTURE WHOLE TREK1 TREK2 TREK3
SABLE 0 0 0 0
KUDU 0 0 0 0
WILDBEEST 0 0 0 0
GEMSBOK 0 0 0 0
AFR.BUFFALO 0 0 0 0
Use Trigger / Pump or Vol+/ Vol- to Move and Start to Selec

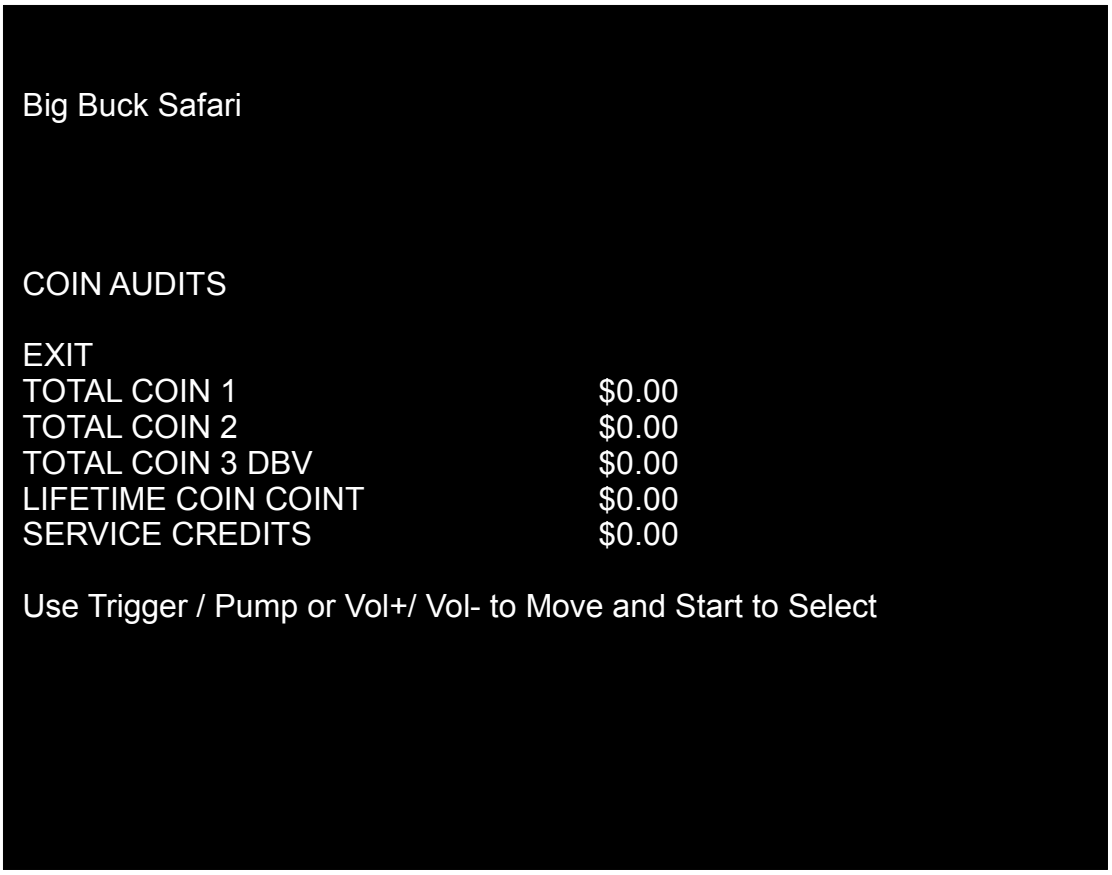
# Bonus Only Audits Menu

From the General Audits Menu, select Bonus Only Audits. The Bonus Only Audits Menu opens.


Big Buck Safari
BONUS ONLY AUDITS
BONUS NAME
EXIT
MONKEY DROP PLAYED BONUS NAME PLAYED
WATERFALL BONUS 0 DRUMBEAT BONUS 0
SHRUNKEN HEAD 0 BOOBYTRAP BONUS 0
FROG HOP BONUS 0 HYENA BONUS 0
OSTRICH BONUS 0 TURTLE TOSS BONUS 0
TARANTULA BONUS 0 CHAMELEON BONUS 0
PINWHEEL BONUS 0 ANT BONUS 0
MEERKAT BONUS 0 PYGMY BIRD BONUS 0
Use Trigger / Pump or Vol+/ Vol- to Move and Start to Select

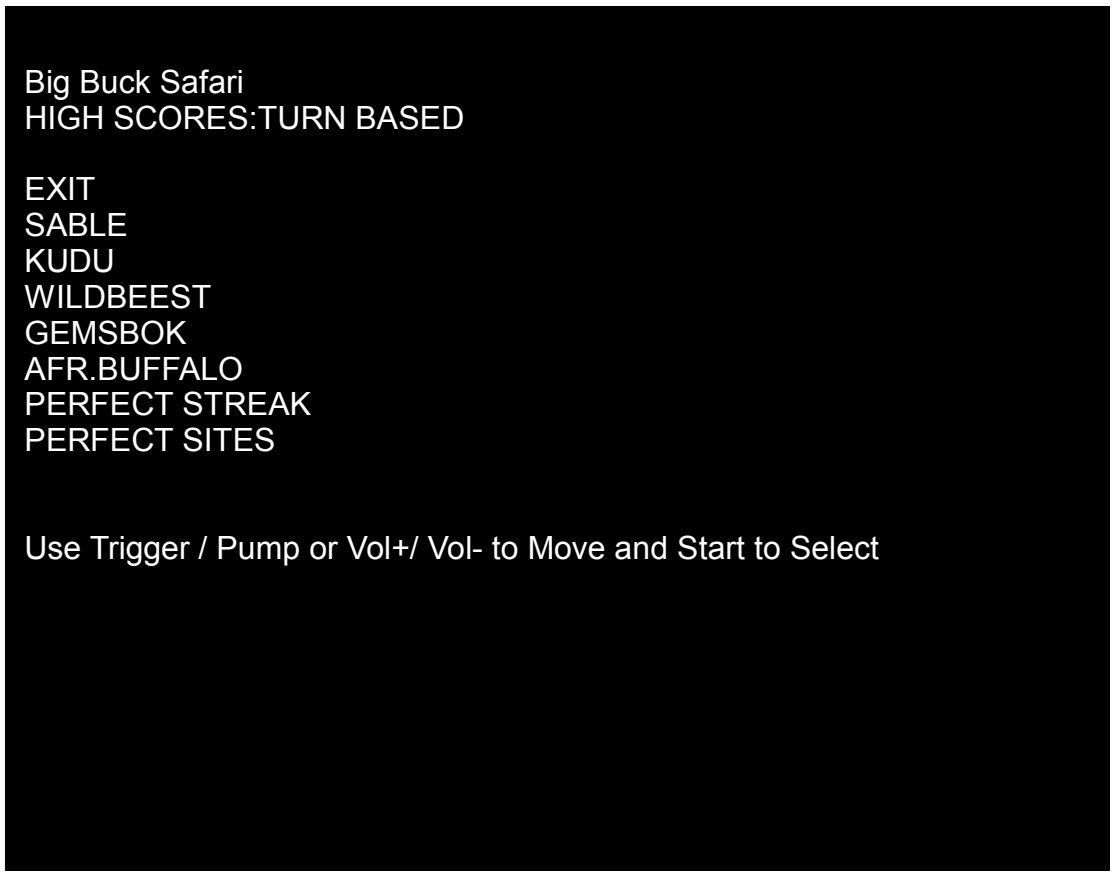
# Coin Audits Menu

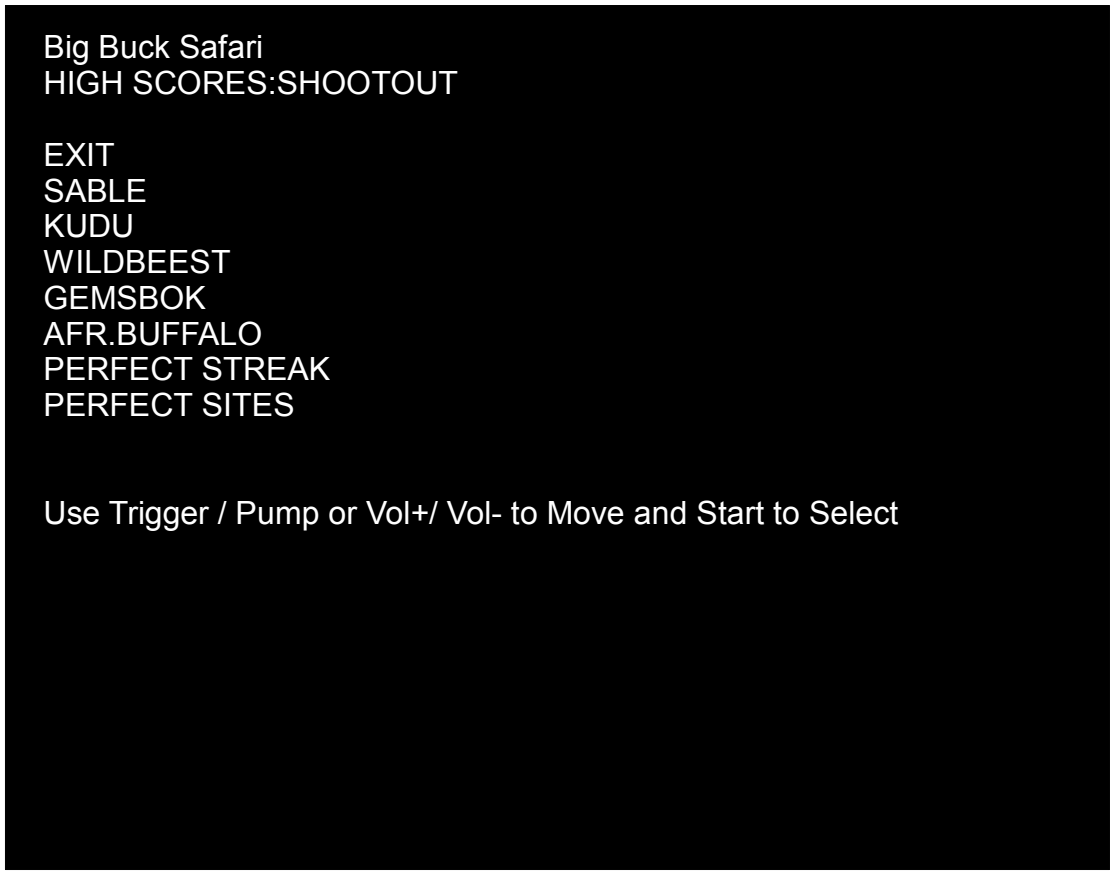
From the General Audits Menu, select Coin Audits. The Coin Audits Menu opens.


Big Buck Safari
COIN AUDITS
EXIT
TOTAL COIN 1 $0.00
TOTAL COIN 2 $0.00
TOTAL COIN 3 DBV $0.00
LIFETIME COIN COINT $0.00
SERVICE CREDITS $0.00
Use Trigger / Pump or Vol+/ Vol- to Move and Start to Select

# High Scores Menu

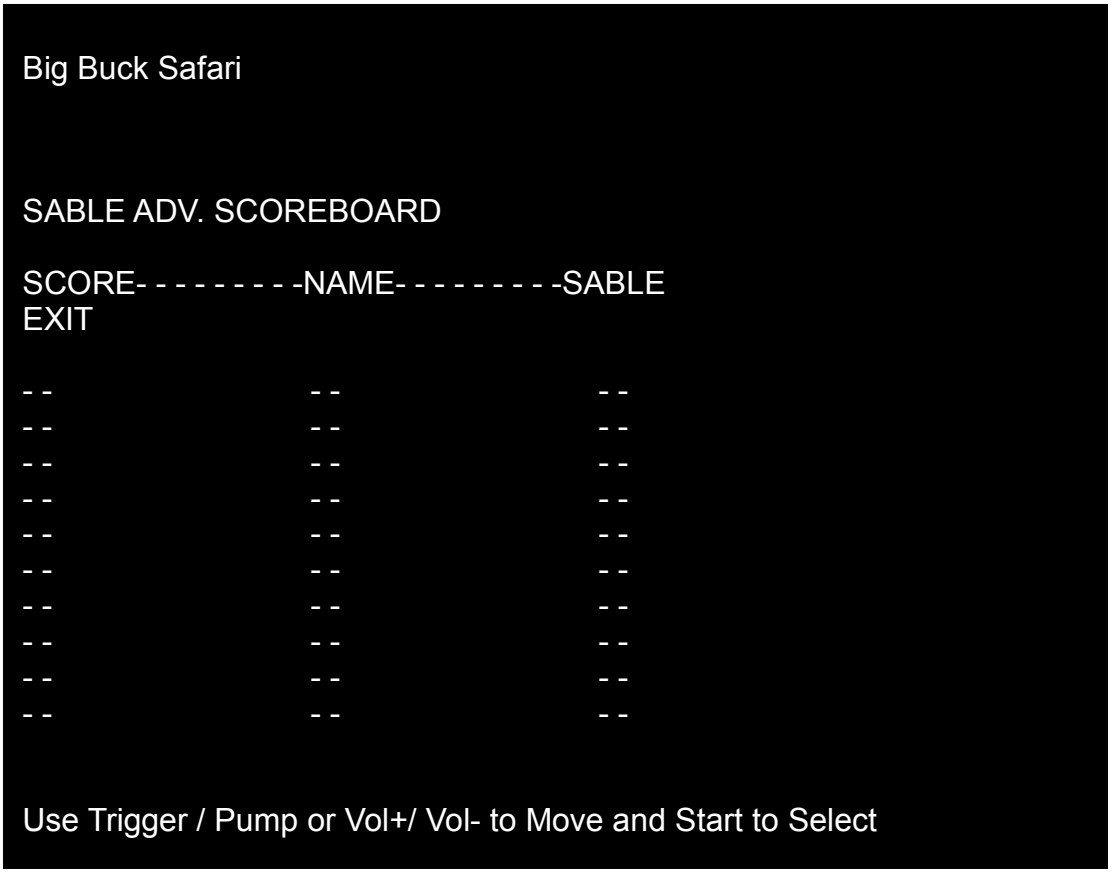
From the Main Menu, select High Scores. The High Scores Menu opens. From this menu, you can view high scores from each type of Big Buck Safari game. There are two main High Score categories: Turn Based and Shootout.



# Sable Adventure Scoreboard

From the High Scores Menu, Sable Adv Scoreboard. The Sable Menu opens. From this menu, you can view high scores from each type of Big Buck Safari game.



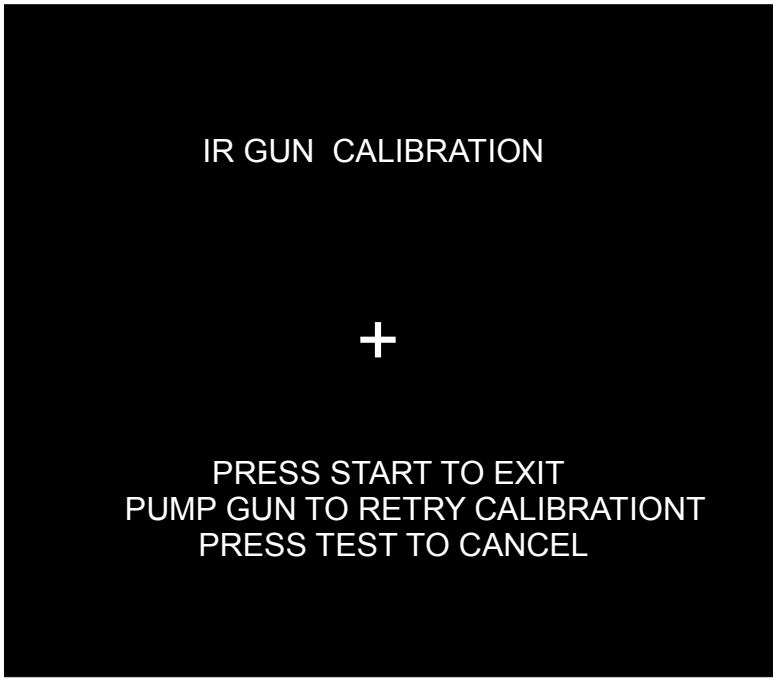

# Other Scoreboards

You can access eleven more other scoreboards from the High Scores Menu…

Sable Adventure
Kudu Adventure
Wildbeest Adventure
Gemsbok Adventure
Afr.Buffalo Adventure
Perfect Streak
Perfect Sites

## Gun Calibration Menu

From the Main Menu, select Gun Calibration. The Gun Calibration Menu opens. As part of VIDEO GAME MACHINE setup, you must calibrate the guns. Periodic gun calibration also allows you to optimize and verify gun performance. We recommend calibrating the guns every week of operation. Properly calibrated guns improve your collections.




## HOW TO CALIBRATE

**NOTICE.** During gun calibration, the gun muzzle must be two feet from the monitor. You must calibrate each gun separately. The left START button accepts left gun calibration and the right START button accepts right gun calibration respectively. It is important to calibrate both guns at the same time. Do not calibrate one gun and then cancel calibration while working with the second gun. This will cause the calibration to not be updated for either gun.

A “+” sign appears in the center of the screen. Aim the gun at the “+” sign and shoot. Accept calibration by pressing corresponding player gun START button .

When you’re satisfied with the calibration of the gun, press the START button for the gun that was just calibrated. For example, to accept calibration for the left gun, press the left START button. With the second gun, repeat the calibration procedure.

Once the calibration for a gun is accepted, the gun tracking screen for that gun will appear. This gives the opportunity for additional gun calibration verification before moving on.

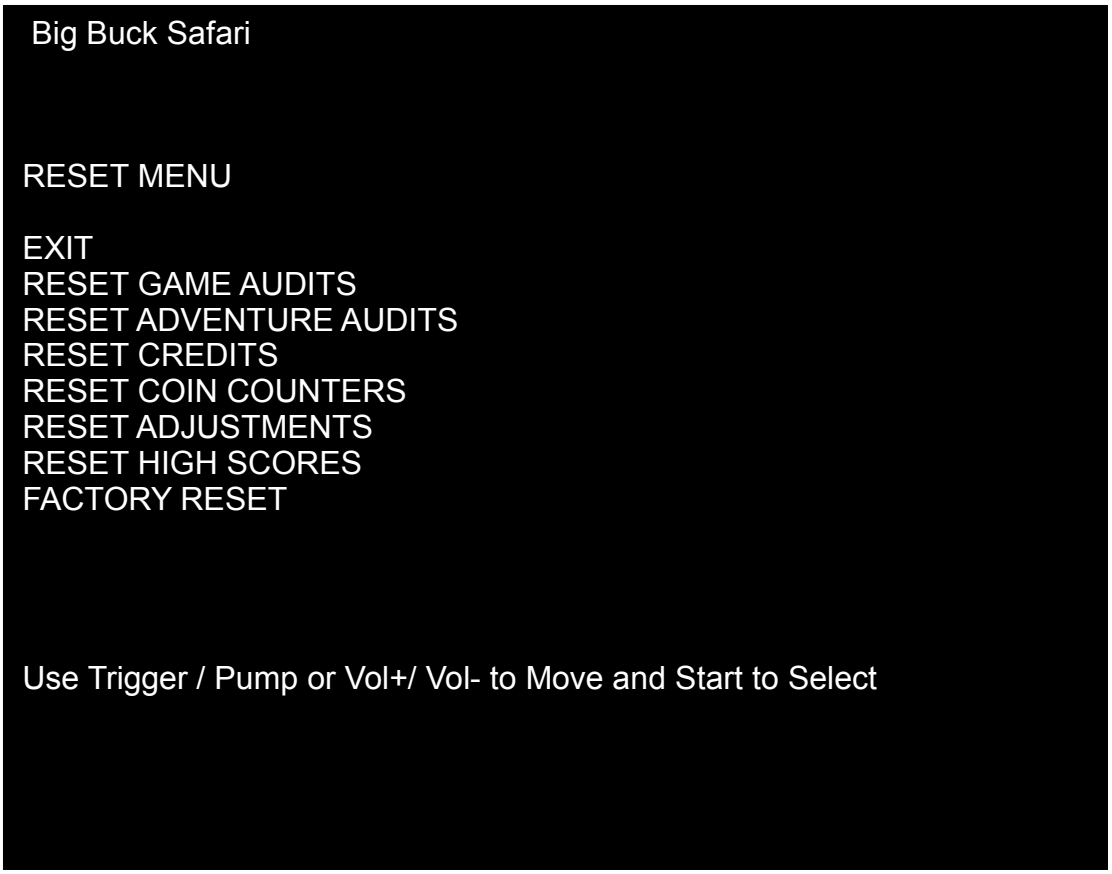
# Reset Menu

From the Main Menu, select Reset Menu. The Reset Menu opens. This menu helps you to find which aspect of the VIDEO GAME MACHINE that you want to reset:

- Audits
- Credits
- Counters
- Adjustments
- Scores
- All of the above

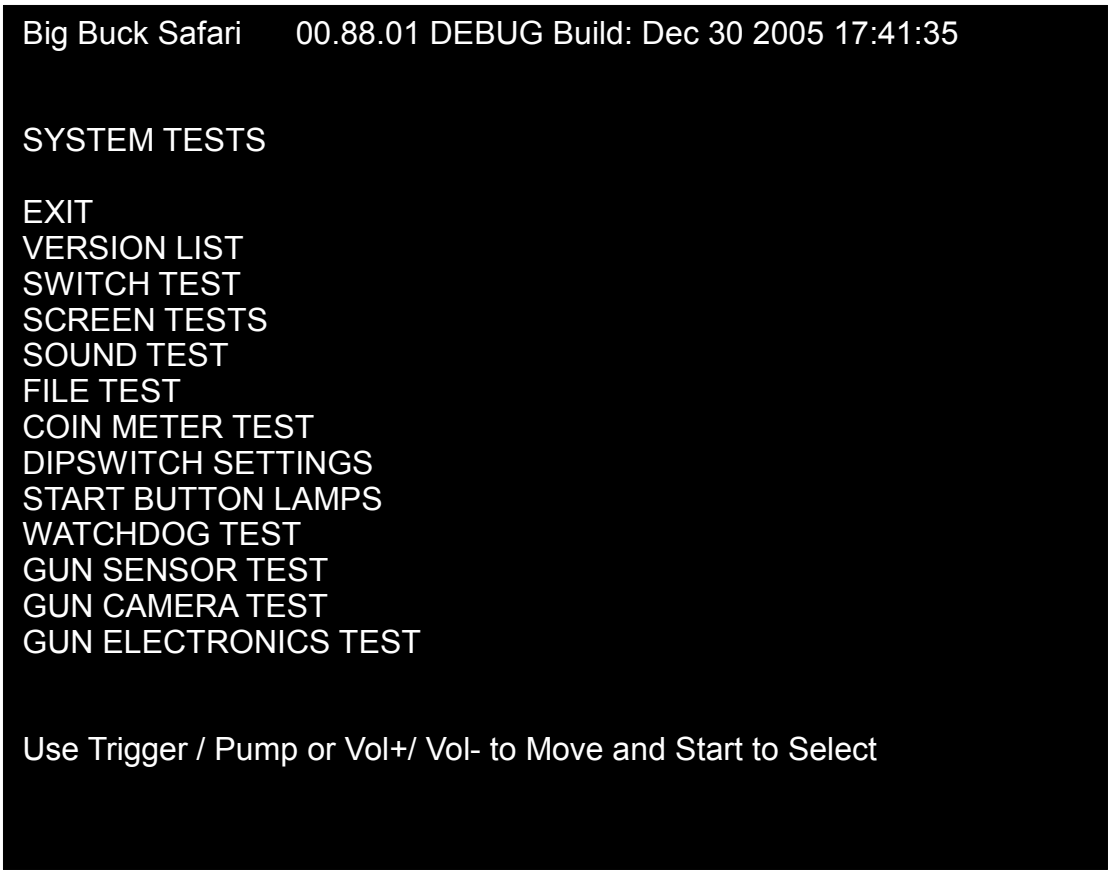
# Factory Reset

Maybe you just want to reset everything. Then choose Factory Reset. Use TRIGGER and PUMP to select Factory Restore. Then enter your setting by pressing START. Factory Reset causes game adjustments to revert back to the settings that the manufacturer recommends. The reset also clears audit data. After the reset, you must recalibrate the gun.



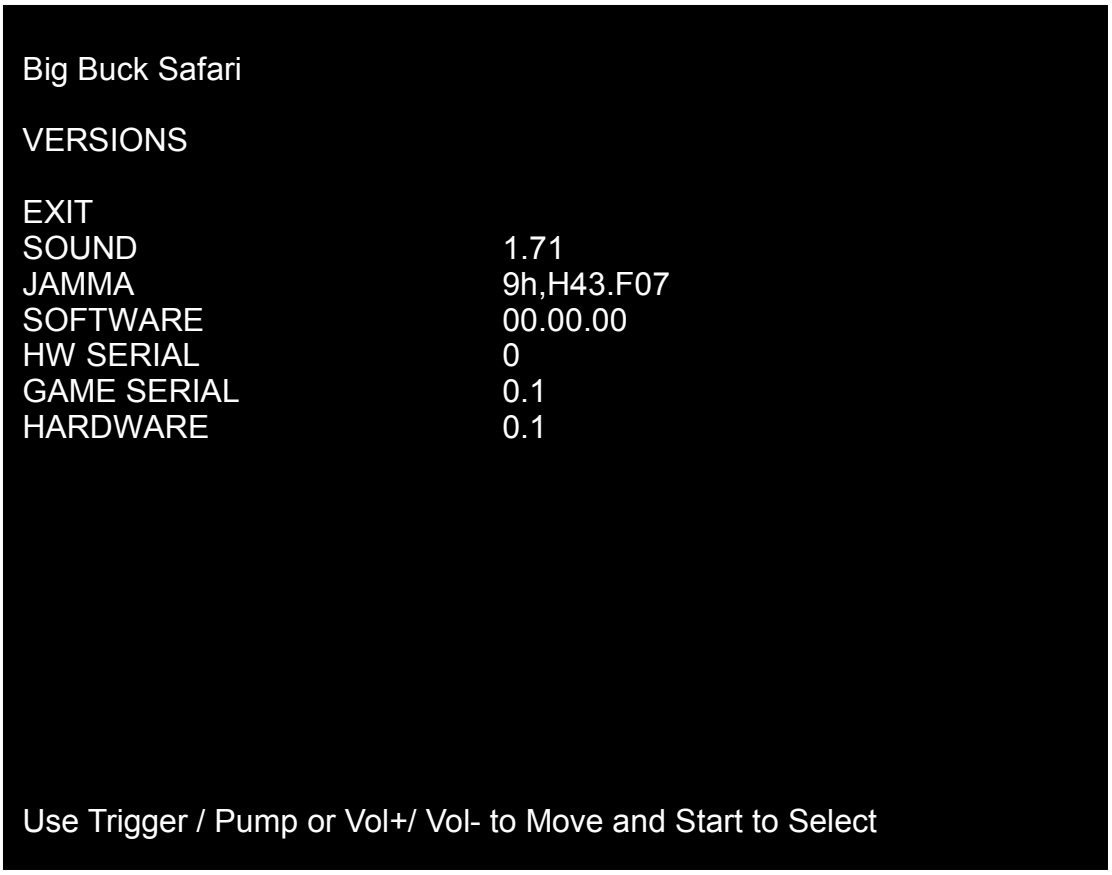
# System Tests Menu

From the Main Menu, select System Tests. The System Tests Menu opens. From this menu, select menus that verify your system version and check peripherals.



# Versions Menu

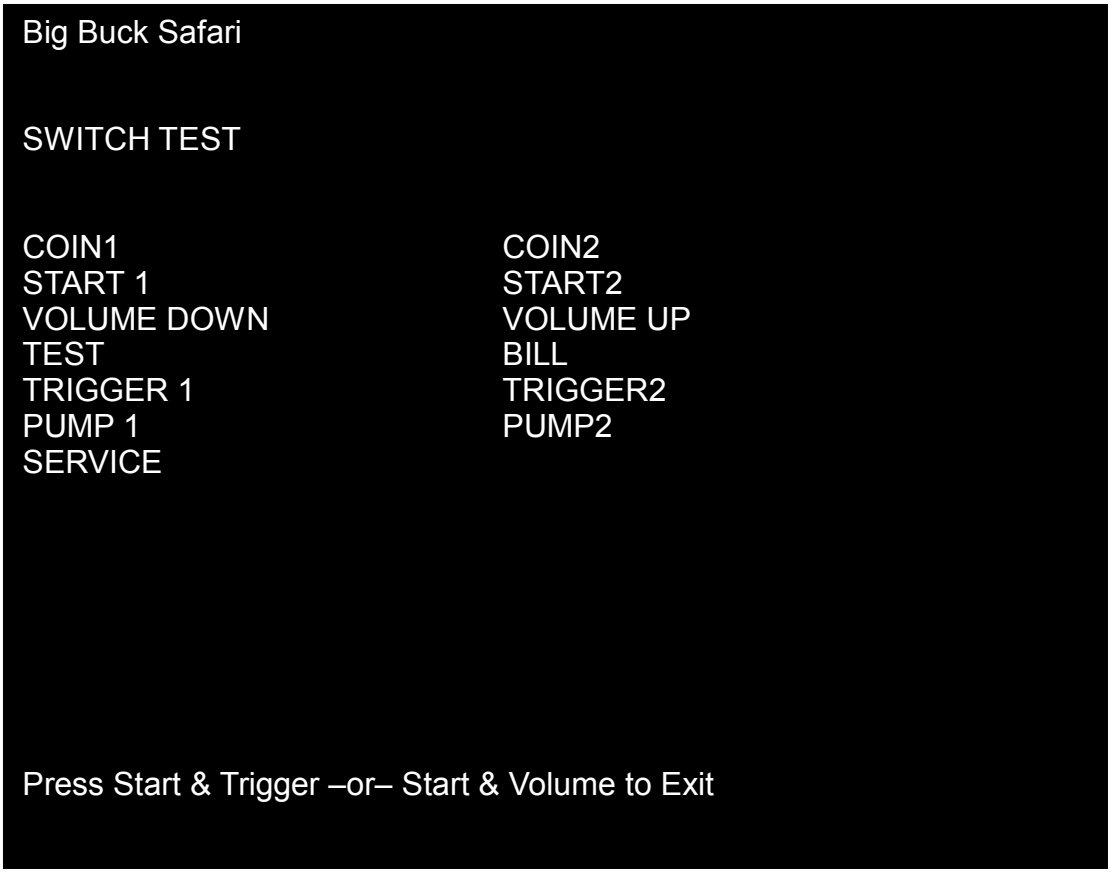
From the System Tests Menu, select Version List. The Versions Menu opens. Use this menu to check your VIDEO GAME MACHINE’s hardware and software versions.



# Switch Test Menu

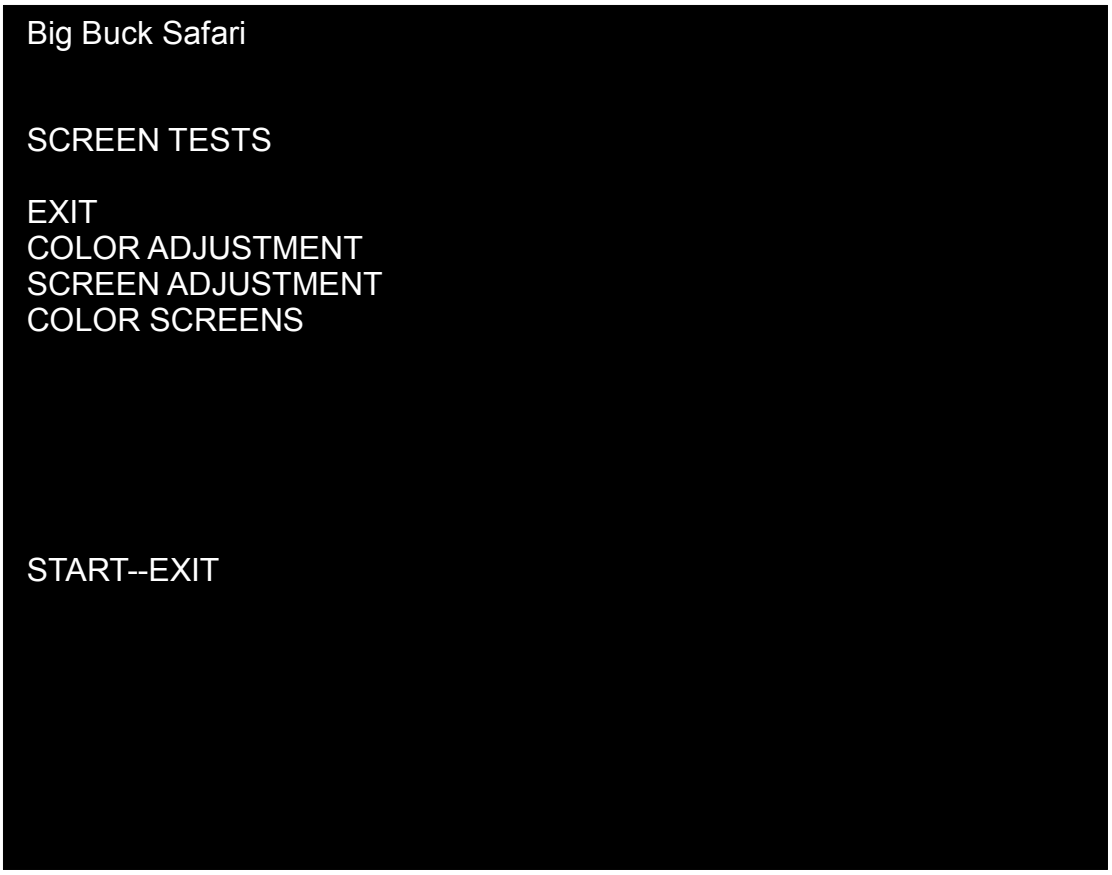
From the System Tests Menu, select Switch Test. The Switch Test Menu opens. Use this menu to check input switch performance. The test screen highlights each switch that you activate. The VIDEO GAME MACHINE also sounds a “switch active” alert.

NOTICE: EXIT PROCEDURE. The Switch Test Menu uses a unique exit procedure. Due to the ongoing diagnostic routine, the procedure has to be different. The menu checks all the switches that you normally use for navigation. To exit, simultaneously press the either START button and either gun trigger. Exiting returns you to the Main Menu.



# Monitor Test Menu

From the System Tests Menu, select Screen Tests. The Screen Tests Menu opens. To perform verify VIDEO GAME MACHINE color performance and adjust the monitor, select Color Adjustment.




# Color Adjustment Menu

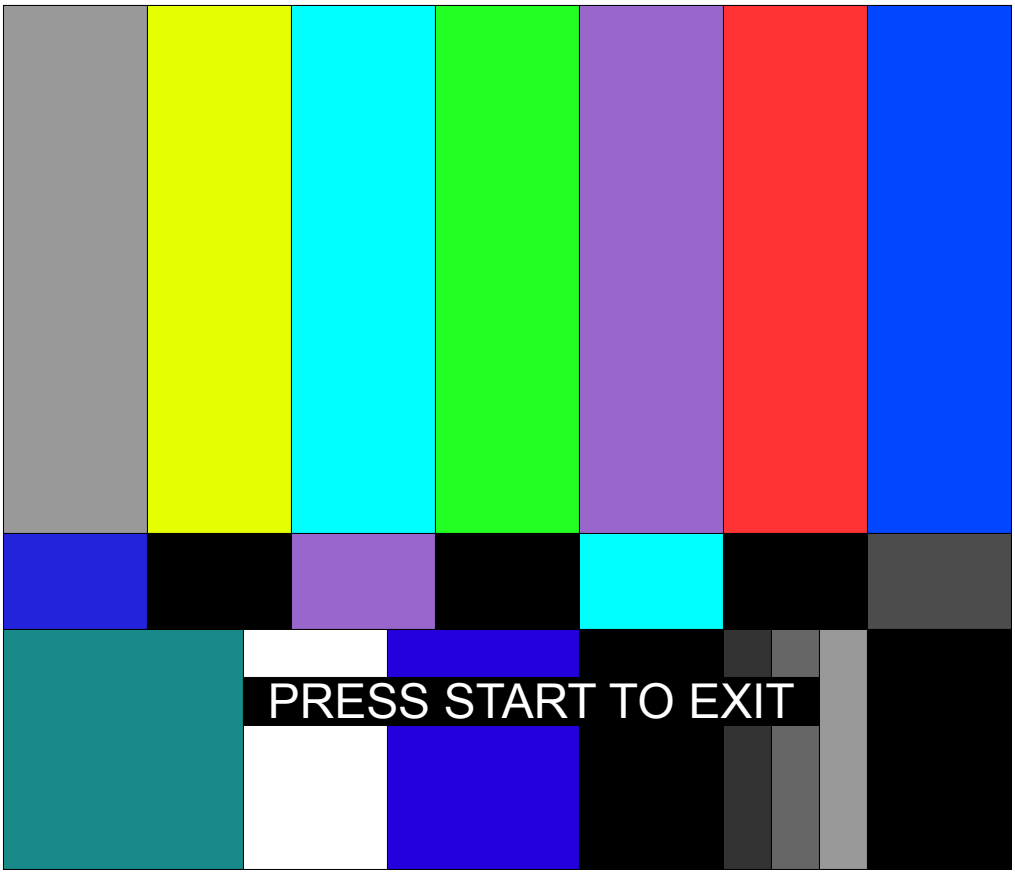
From the Monitor Test Menu, select Color Adjustment. The Color Adjustment Menu opens. To exit, press START.

Color Adjustment isn't really a menu. Actually, it's a special, color bars screen. In the monochrome illustration below, we label the colors that you'll see. These labels don't appear on the screen.

# Uses for the Color Adjustment Menu

Check the color bars for missing colors. Missing colors can be cause for adjustments. On the other hand, missing colors might indicate serious trouble. The monitor isn't the only cause for missing colors. You might have a bad video RAM in your VIDEO GAME MACHINE computer. Inside the monitor, a bad gun or bad gun drive transistor could be the culprit. Here are some other uses for the color bars…

- Peak the brightness and black level
- Balance the red, green and blue drives
- Check purity problems (color contamination)
- Adjust convergence (particularly static convergence)
- Compensate for barrel or pincushion distortion
- Adjust size controls
- Check for plumb lines (straight yoke)
- Test for video noise sources (bad cables, etc.)


PRESS START TO EXIT

# Screen Adjustment Menu

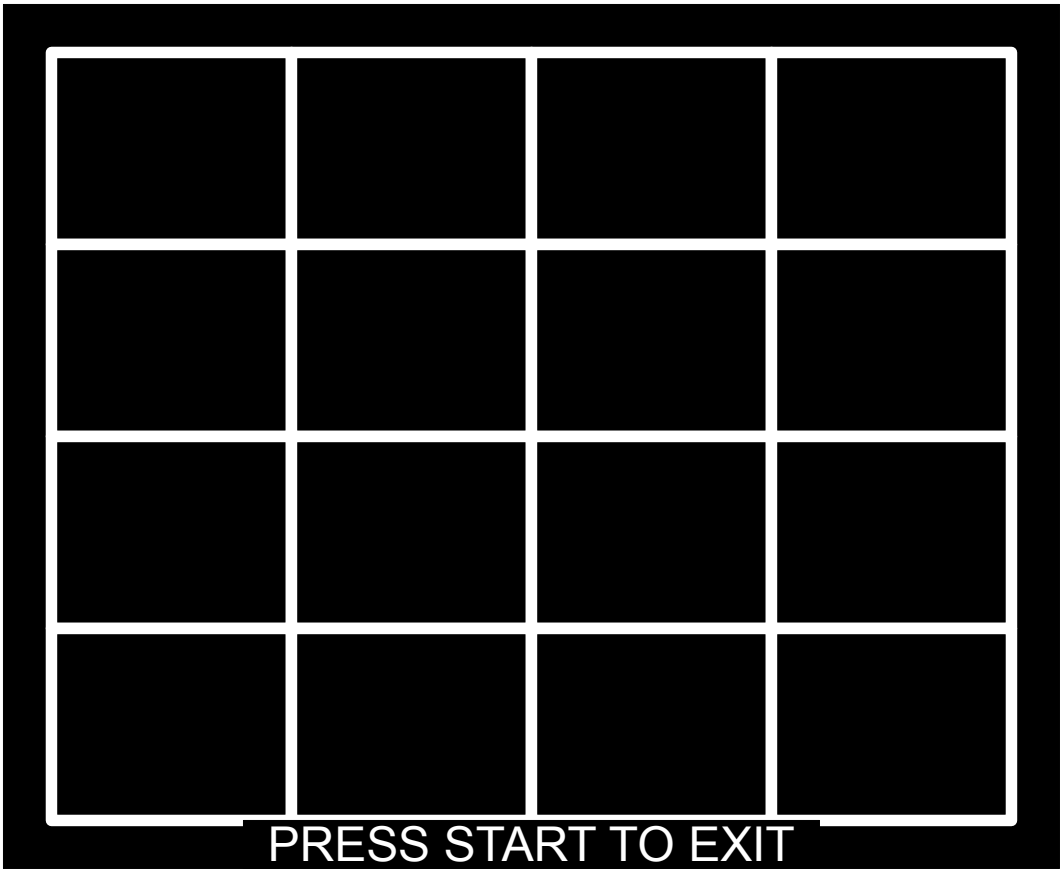
From the Monitor Test Menu, select Screen Adjustment. The Screen Adjustment Menu opens. This is a crosshatch screen.

WIDTH & HEIGHT. The crosshatch grid helps you to adjust the monitor height and width controls. Adjust them until the grid fills the screen. Keep all the lines visible, though. If part of the grid goes off the screen, then the game image will, too. To exit from this screen, press START.

STATIC CONVERGENCE & PURITY. A crosshatch pattern is also useful when you're converging the beams. All the lines must be white. Otherwise, you have convergence or purity problem. Slight color tinges at the extreme edges of the screen are okay, though. Check your monitor manual for adjustment instructions.

BRIGHTNESS. Also make sure that the bars are a fairly strong white. If they aren't, then you should adjust the raster brightness or pedestal control.  Also adjust this control if you find retrace lines across the grid.

FOCUS. Bars with fuzzy edges indicate a focus problem. Adjust the focus control for best sharpness.



# Color Screens

From the Monitor Test Menu, select Color Screens. Color screens are solid, one-color images. You can cycle through screens with the START button. Pressing start once more cause you to exit. You'll find five screens…

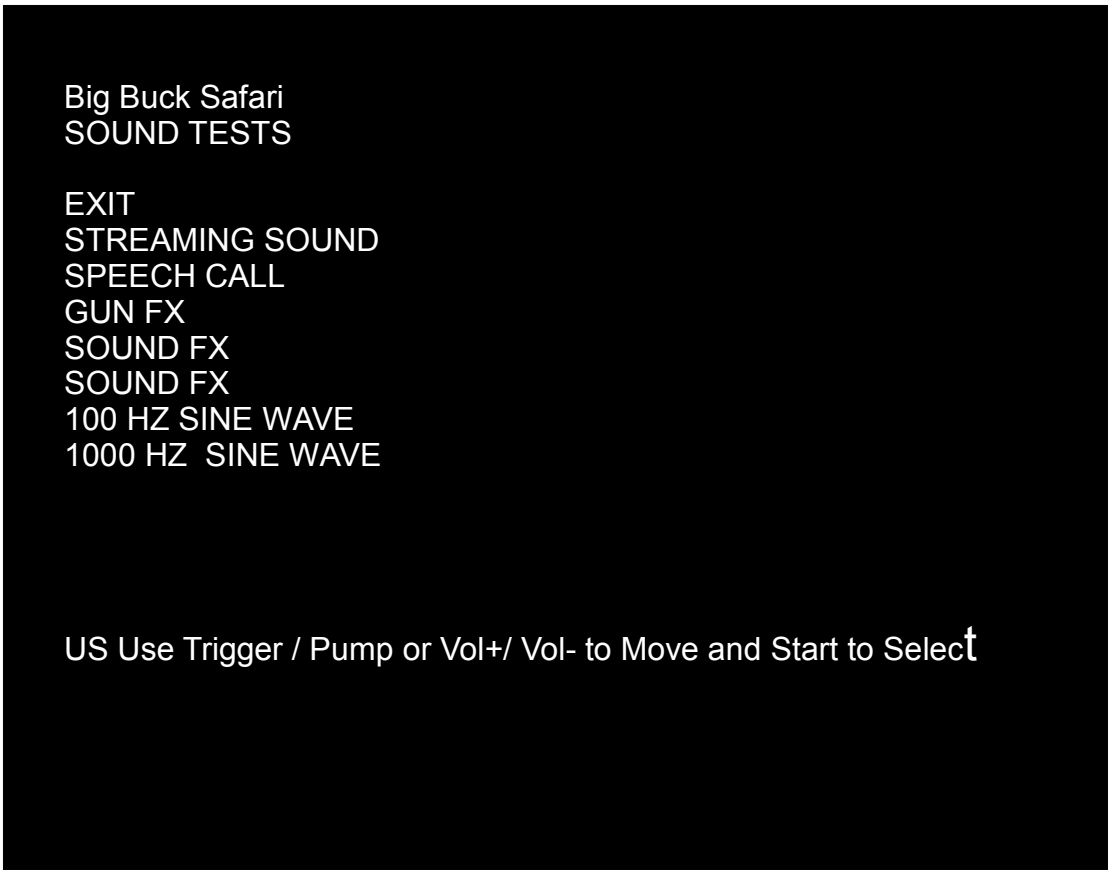
- Black
- Green
- White
- Blue
- Red

The color screens help you to adjust color drive controls for proper intensity. You can use the red, blue and green screens to test for a dead picture tube gun. When setting the pedestal (black level) control, use the black screen. Put up the white screen for brightness adjustments and to help you balance color output.

# Sound Tests Menu

From the System Tests Menu, select Sound Test. The Sound Tests Menu opens. Use this menu to check sound volume and quality.

Missing sounds indicate digital flaws. Distorted sounds suggest analog flaws. The lack of sound implies disconnected or bad cables, speakers or amplifiers.




STREAMING SOUND is a sample of the game music.
SPEECH CALL includes talking commentary.
GUN FX is the shotgun blast.
SOUND FX is a whistle.
SOUND FX (2ND ONE) is a guitar riff.
100 HZ SINE WAVE
1000 HZ SINE WAVE

## File Test Menu

From the System Tests Menu, select File Test. The File Test Menu opens. This menu runs a checksum test of system memory. Afterward, an onscreen message informs you of file status. If the memory is good, you can proceed with the next test. Otherwise, proceed to Chapter 4, Maintenance, Wiring & Troubleshooting. Run a hard drive recovery.

## CAUTION

If your VIDEO GAME MACHINE fails the file test, don't proceed with system tests. Corrupt files as indicated by the message " Errors Detected in Files..." affect gameplay and the results of the other tests. If file errors result from failing power circuits, continued operation might cause further damage.

## Coin Meter Test

From the System Tests Menu, select Coin Meter Test. No menu opens. For this test, the System Tests Menu is the bottom-level menu. Watch your VIDEO GAME MACHINE's mechanical coin meter. You'll find this meter on the switch bracket behind the coin door. When you select Coin Meter Test, the meter should increment by one count. If it does, then the meter is okay. If the meter doesn't click, then it probably isn't receiving a pulse from the VIDEO GAME MACHINE. Troubleshoot the problem. If the meter clicks, but doesn't increment, replace the meter.

## DIP Switch Settings Menu

From the System Tests Menu, select DIP Switch Settings. The DIP Switch Settings Menu opens. Use this menu to check settings of the I/O Board DIP switches. For normal operation, all eight switches must be off.

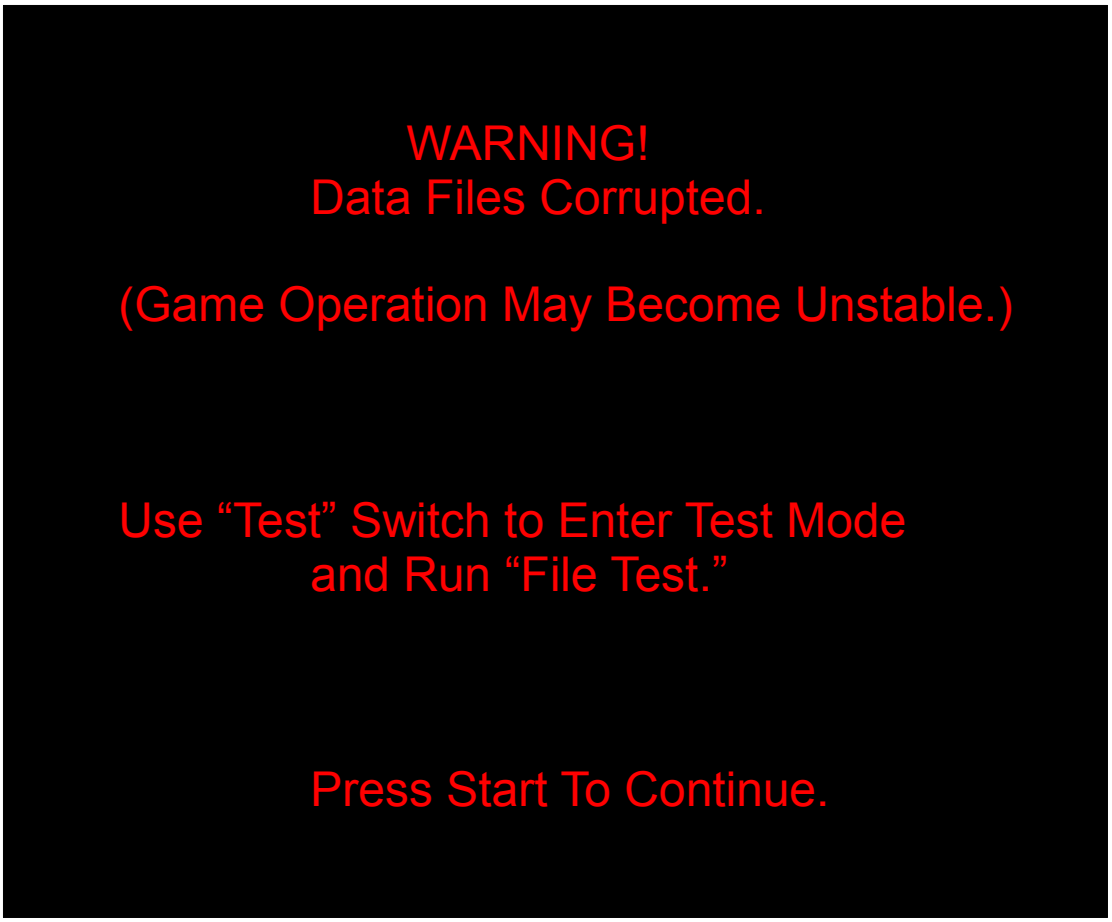
## Start Button Lamps Menu

From the System Tests Menu, select Start Button Lamps. The Start Button Lamps Menu opens. Use this menu to check for burned out START button LEDs. The test blinks the LEDs. Replace failed parts.

## Watchdog Tests Menu

From the System Tests Menu, select Watchdog Test. The Watchdog Test Menu opens. Use this menu to test the Watchdog circuit. This circuit protects the VIDEO GAME MACHINE against screen freezes (loops). After a countdown, the Watchdog Test resets the VIDEO GAME MACHINE. To exit before the reset, use PUMP, TRIGGER, START or either VOLUME button. If the test succeeds, the game resets normally. If the test fails, the reset process loops or ends abnormally. If you encounter a failure mode, troubleshoot the VIDEO GAME MACHINE or call for service.

## Hard Drive Recovery


WARNING!
Data Files Corrupted.
(Game Operation May Become Unstable.)
Use “Test” Switch to Enter Test Mode
and Run “File Test.”
Press Start To Continue.

CORRUPT FILE SCREEN. If you see the above screen, your VGM computer has corrupt files. To determine which files are corrupt, you can run the File Test. (See Chapter 3, Audits, Adjustments & Diagnostics.) The File Test can’t repair corrupt files, though. The only solution is to perform a hard-drive recovery.

HERE ARE SOME SYMPTOMS of a bad hard drive:

- Hard Drive Test reports “bad” or “missing” files.
- The game fails to finish loading.
- After you cycle the power or reset the VGM, the VGM reports a error.
- The VGM prompts you to insert a boot DVD.
- Erratic Game Mode or Attract Mode.

**NOTICE.** Big Buck Hunter Pro ships with a recovery DVD. Hard drives occasionally fail. If your disk fails, restore hard drive data by following this procedure. Avoid rough handling of the computer or DVD. Check the Troubleshooting Guide in this document.

From the back of the video game, check the I/O board. The I/O board must be powered and be connected to the computer. Verify the serial cable connectes the I/O board and the computer.

1. Verify that the I/O board has power.
2. Access the computer by opening the top coin door.
3. Open the DVD of the computer by pressing the OPEN/CLOSE button on the DVD drive.
4. Insert the recovery DVD.
5. Close the DVD drive by pressing the OPEN/CLOSE button.
6. Turn-off the video game using the main power switch.
7. Turn-on the video game. The disk recovery process will begin automatically. Recovery will take 30-40 minutes. If recovery process does not start, check to make sure the DVD is inserted correctly or is not physically damaged.
8. When the recovery is completed, there will be a message on the bottom of the screen to remove the DVD.
9. Remove DVD and power cycle the game.

**CAUTION:** DURNING THE FOLLOWING PROCESS, DO NOT INTERRUPT POWER OR RESET THE GAME!

10. The video game will begin a 'first-boot' initialization procedure. This will take a few minutes.
11. The video game will require that the guns be calibrated. The calibration mode will automatically be entered. Calibrate both guns at this time.

# BIOS Settings / Power Management

**NOTICE.** Big Buck Hunter Pro ships with the correct BIOS settings. Making BIOS changes will adversely affect the VGM.

The BIOS settings along with the functionality of the FUSE/WD board (p/n 500-00012-xx) allows the main VGM to power correctly. The BIOS settings need to match the settings listed below. Otherwise the VGM will not properly recover from being turned-off, power failure, or brownout. It is also noteworthy that the FUSE/WD board makes the functionality of the power switch on the computer not function as one would expect. Never use the power switch on the computer. Proper power control for the VGM is performed by using the main AC power switch located on the lower backside of the VGM.

BIOS Set-up Procedure

1.Turn the game off.

2.Connect a USB keyboard to the computer.

3.While holding the [F2] key, turn on the main power switch of the VGM. The BIOS menu screen will appear. For a Dell Computer, verify the settings listed in the following table on the next page.

4.To save and exit, follow the instructions on the BIOS screen. The computer will reset and load the game.

| LEVEL | ITEM | VALUE |
|---|---|---|
| SYSTEM | BOOT SEQUENCE | 1. CD/DVD/CD-RW DRIVE<br>2. USB-ZIP<br>3. USB-DEVICE<br>4. HARDDRIVE<br>5. USB-FDD<br>6. USB-CDROM<br>7. NIC<br>8. DISKETTE DRIVE |
| DRIVES | DISKETTE DRIVE | USB |
| DRIVES | DRIVE 0: | SATA-0: ON |
| DRIVES | DRIVE 1: | SATA-1: ON |
| DRIVES | SMART REPORTING | OFF |
| ONBOARD DEVICES | INTEGRATED NIC | ON |
| ONBOARD DEVICES | INTEGRATED AUDIO | ON |
| ONBOARD DEVICES | USB CONTROLLER | ON |
| ONBOARD DEVICES | REAR TRIPLE USB | ON |
| ONBOARD DEVICES | REAR DUAL USB | ON |
| ONBOARD DEVICES | FRONT USB | ON |
| ONBOARD DEVICES | LPT PORT MODE | EPP |
| ONBOARD DEVICES | LPT PORT ADDRESS | 378H |
| ONBOARD DEVICES | SERIAL PORT #1 | COM1 |
| VIDEO | PRIMARY VIDEO | ONBOARD/CARD |
| VIDEO | VIDEO MEMORY SIZE | 16MB |
| PERFORMANCE | HDD ACOUSTIC MODE | BYPASS |
| SECURITY | ADMIN PASSWORD | NONE |
| SECURITY | SYSTEM PASSWORD | NONE |
| SECURITY | DRIVE 0 PASSWORD | NONE |
| SECURITY | DRIVE 1 PASSWORD | NONE |
| SECURITY | PASSWORD CHANGES | UNLOCKED |
| SECURITY | CHASSIS INTRUSION | OFF |
| POWER MANAGEMENT | AC RECOVERY | ON |
| POWER MANAGEMENT | AUTO POWER-ON | OFF |
| POWER MANAGEMENT | LOW POWER MODE | OFF |
| POWER MANAGEMENT | REMOTE WAKE-UP | OFF |
| POWER MANAGEMENT | COOL AND QUITE | OFF |
| POWER MANAGEMENT | SUSPEND MODE | S3 |
| MAINTEANCE | ASF MODE | OFF |
| MAINTEANCE | FAST BOOT | ON |
| POST BEHAVIOR | NUMLOCK KEY | ON |
| POST BEHAVIOR | POST HOTKEYS | SETUP & BOOT MENU |
| POST BEHAVIOR | KEYBOARD ERRORS | DO NOT REPORT |

**WARNING:** Extremely high voltages exist in the video monitor at all times. These high voltages exist even when the monitor is off and the AC line cord is disconnected. These voltages are extremely lethal and will cause death. The monitor contains no user serviceable parts. Do not attempt to service the monitor.

Big Buck Hunter Pro uses sensitive electronic optical technology. These optics detect the position of the guns during normal game play. It is important that the video monitor is adjusted and maintained properly. Proper contrast and brightness settings will improve the guns performance. As the monitor ages over time, it is important to review and adjust the settings of the video monitor. The video monitor needs to be free of dirt and dust that collects on the viewing face of the video monitor. Reliable gun operation depends on display quality.

Familiarize yourself with the video monitor settings. Settings differ slightly between manufacturers and even between displays of the same manufacturer. Display adjustments can compensate, to some extent, for display aging. The information below serves as a reference.

| SETTING | ADJUSTMENT |
|---|---|
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |

# JAMMA I/O BOARD CONNECTOR TABLE

| FUNCTION | WIRE COLOR | PIN |
|---|---|---|
| GROUND | BLACK | 1 |
| | | 2 |
| 5 VOLTS | RED | 3 |
| | | 4 |
| | | 5 |
| 12 VOLTS | ORANGE | 6 |
| | | 7 |
| COIN METER | BROWN YELLOW | 8 |
| RESET | VIOLET | 9 |
| | | 10 |
| SPEAKER (+) | BROWN RED | 11 |
| | | 12 |
| | | 13 |
| | | 14 |
| TEST | BLUE | 15 |
| COIN 1 | GREY BROWN | 16 |
| P1 START | WHITE BROWN | 17 |
| | | 18 |
| | | 19 |
| | | 20 |
| | | 21 |
| | | 22 |
| | | 23 |
| VOLUME (+) | ORANGE RED | 24 |
| DBV | GRAY ORANGE | 25 |
| | | 26 |
| | | 27 |
| GROUND | BLACK | 28 |

| PIN | WIRE COLOR | FUNCTION |
|---|---|---|
| A | BLACK | GROUND |
| B | | |
| C | RED | 5 VOLTS |
| D | RED | 5 VOLTS |
| E | | |
| F | | |
| H | | |
| J | VIOLET BROWN | P1 LAMP |
| K | VIOLET RED | P2 LAMP |
| L | | |
| M | BROWN BLACK | SPEAKER (-) |
| N | | |
| P | | |
| R | VIOLET WHITE | SERVICE |
| S | | |
| T | GRAY BLUE | COIN 2 |
| U | GREEN BROWN | P2 START |
| V | | |
| W | | |
| X | | |
| Y | | |
| Z | | |
| a | | |
| b | ORANGE GREEN | VOLUME (-) |
| c | | |
| d | | |
| e | | |
| f | BLACK | GROUND |

# TROUBLESHOOTING GUIDE

**WARNING. Remove all power and disconnect AC line cord to VGM before servicing!** Service performed by qualified service technician only. With power on do not connect or disconnect cables or connectors, damage to the VGM will occur.

## VGM Fails To Power-up

The VGM will be in this failure mode when either the main AC power has failed, been disconnected, or the computer has failed to turn-on. The computer provides +5VDC and +12VDC for the VGM. Turning on the computer is controlled by the FUSE/WD board, p/n 500-00012-01.

1.Verify the VGM power switch is on.
2.Verify the AC line cord is plugged into a functional AC outlet.
3.Verify the AC outlet is the correct voltage for the VGM.
4.Verify the VGM is set to the correct voltage. There is a voltage switch on the computer that needs to be set correctly. If this switch is set incorrectly and the VGM has been powered, damage to the computer may have occurred.
5.Verify the main AC power fuse for the VGM. This can be found on the lower back side of the VGM by the main power switch. If a fused failed, examine the VGM for a fault condition and repair the condition before replacing the fuse. For Continued protection, replace the fuse with identical UL rated fuse.
6.Verify the fuses on the FUSE / WD board, p/n 500-00012-01. These fuses protect the +5VDC and +12VDC power rails of the VGM. If a fused failed, examine the VGM for a fault condition and repair the condition before replacing the fuse. For Continued protection, replace the fuse with identical UL rated fuse.
7.Verify cable connectors inside the VGM. Look for cable connectors that are loose or not connected.
8.Contact _____ for additional service. You may have a failed computer or FUSE/WD board.

## VGM Displays “NO VIDEO” Message On The Video Monitor

The VGM will display this message when the video display is powered but the video monitor has no valid video signal.

1.Verify the VGM is set to the correct voltage. There is a voltage switch on the computer that needs to be set correctly. If this switch is set incorrectly and the VGM has been powered, damage to the computer may have occurred.
2.Verify cable connections inside the VGM, including the video and power cables of the computer, I/O board, FUSE/WD board and monitor.
3.Verify the fuses on the FUSE / WD board, p/n 500-00012-01. These fuses protect the +5v and +12v power rails of the VGM. If a fused failed, examine the VGM for a fault condition and repair the condition before replacing the fuse. Replace fuse with identical UL rated fuse.
4.Verify the I/O board has power.
5.Verify the FUSE/WD board has power. The +5VDCSTBY LED indicator should be on.
6.Verify the FUSE/WD board is running. There is a green LED indicator that should be blinking.
7.Contact _____ for additional service. You may have a failed computer, FUSE/WD board or I/O board.

## VGM Displays No Video On The Video Monitor

The VGM will exhibit this failure when either the VGM is not powered, the monitor is not powered, the monitor is not correctly adjusted or the video monitor has failed.

1.Verify the VGM has powered-up. If not see 'VGM Fails To Power-up' in this troubleshooting section for more details.
2.Verify the cable connectors inside the VGM, paying close attention to the power and video signal cables of the video monitor.
3.Verify the video monitor has AC power.
4.Verify the contrast and brightness settings of the monitor. Make sure they are not set too low.
5.Contact _____ for additional service. You may have a failed monitor.

## VGM Has No Sound

If the game is running and there is no sound.

1.Verify that the audio levels are set to acceptable levels. This can done through the Diagnostic Menu System.
2.Verify the cable connections inside the VGM. Ensure that the audio cable from the computer is connected to the I/O board.
3.Verify the speaker cable is connected.
4.Verify the fuses on the FUSE / WD board, p/n 500-00012-01. These fuses protect the +5v and +12v power rails of the VGM. If a fused failed, examine the VGM for a fault condition and repair the condition before replacing the fuse. Replace fuse with identical UL rated fuse.
5.Verify the I/O board has power.
6.Contact _____ for additional service. You may have a failed audio system.

## VGM Monitor Displays 'CONNECT I/O'

If the computer is unable to communicate with the I/O board, the 'Connect I/O' message will be displayed in the video display.

1.Verify that the I/O board has power. Check the fuses on the FUSE / WD board, p/n 500-00012-01.
2.Verify the cable connections inside the VGM. Verify the serial cable that connects the I/O board to the computer is securely attached.
3.Power-cycle the VGM.
4.Contact _____ for additional service. You may have a failed I/O board.

## VGM Monitor Displays 'INSERT DONGLE'

This message indicates that the computer is unable to communicate with the security dongle that is located on the back of the computer.

1.Verify that the security dongle is attached to a USB port of the computer.
2.Contact _____ for additional service. You may have a failed security dongle or a USB port on the computer.

## VGM Game Play is Slow, Freezes, or Resets.

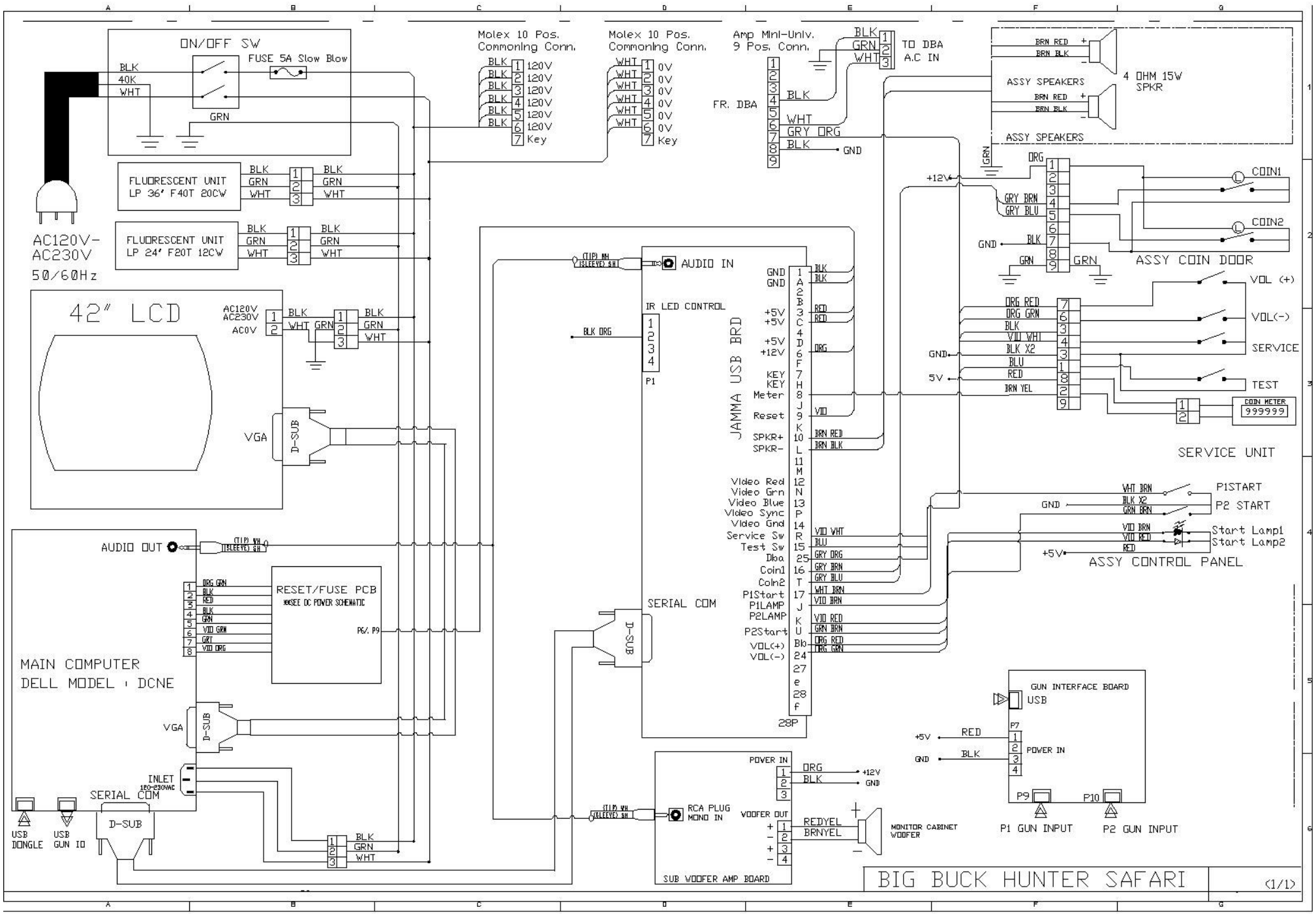
Numerous items can cause game play to exhibit freezing or slow play. Typical failure modes include excessive heat, corrupt drive, or failing hardware.

1.Verify that the security dongle is attached to a USB port of the computer.
2.Verify cable connections inside the VGM. Verify the serial cable that connects the I/O board to the computer is securely attached.
3.Verify that the VGM is not running excessively hot. Verify that the cooling fan at the top of the VGM is running and not obstructed. The back of the VGM must be at least one foot away from a wall in order to allow the vents on the VGM to breathe.
4.Verify that the computer is not running excessively hot. Verify that the computers cooling fans are running.
5.Verify the drive. This can be done via the Operators Menu. The drive can be re-imaged, by inserting the CD that was included with the VGM. See 'Drive Recovery Procedure' for instructions.
6.Verify that the games +5VDC +12VDC power rails are within +/- 5% tolerance.
7.Incorrect lamps in the coin door can cause the VGM to reset. Verify that the bulbs are 12 volt DC rated.
8.Contact _____ for additional service.

## VGM Guns Do Not Work Properly

As part of VGM setup, you must calibrate the guns. Periodic gun calibration also allows you to optimize and verify gun performance. We recommend calibrating the guns every week of operation. Properly calibrated guns improve your collections.

1.Calibrate the guns and verify calibration. Verify that the guns switch's work in addition to the optics. Calibration is done via the Diagnostic Menu System.
2.Adjust the brightness and contrast of the monitor. A dark video image will cause the guns to malfunction.
3.Clean the video monitor of dirt and fingerprints. Examine the optic lens at the end of the gun. Dirt and fingerprints on the guns optic lens will cause poor performance.
4.Verify cable connections in the VGM. Verify that the guns are properly connected to the I/O board. Verify that the left gun is attached to the Left Gun connector and the right gun to the Right Gun connector.
5.Verify that the gun cable harness has not been damaged at the gun mount.
6.Contact _____ for additional service.


ON/OFF SW
FUSE 5A Slow Blow
BLK
40K
WHT
GRN
AC120V-
AC230V
50/60Hz
FLUORESCENT UNIT
LP 36' F40T 20CW
FLUORESCENT UNIT
LP 24' F20T 12CW
42" LCD
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AC230V
AC0V
VGA
D-SUB
Molex 10 Pos.
Commoning Conn.
120V
Key
Molex 10 Pos.
Commoning Conn.
0V
Key
Amp Mini-Univ.
9 Pos. Conn.
TO DBA
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FR. DBA
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ASSY SPEAKERS
+12V
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COIN2
ASSY COIN DOOR
VOL (+)
VOL(-)
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TEST
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28P
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Video Grn
Video Blue
Video Sync
Video Gnd
Service Sw
Test Sw
Dba
Coin1
Coin2
P1Start
P1LAMP
P2LAMP
P2Start
VOL(+)
VOL(-)
P1START
P2 START
Start Lamp1
Start Lamp2
ASSY CONTROL PANEL
AUDIO OUT
RESET/FUSE PCB
SEE DC POWER SCHEMATIC
P6, P9
MAIN COMPUTER
DELL MODEL : DCNE
SERIAL COM
INLET
SERIAL COM
USB DONGLE
USB GUN IO
POWER IN
RCA PLUG
MONO IN
WOOFER OUT
MONITOR CABINET
WOOFER
SUB WOOFER AMP BOARD
GUN INTERFACE BOARD
USB
POWER IN
P1 GUN INPUT
P2 GUN INPUT
BIG BUCK HUNTER SAFARI
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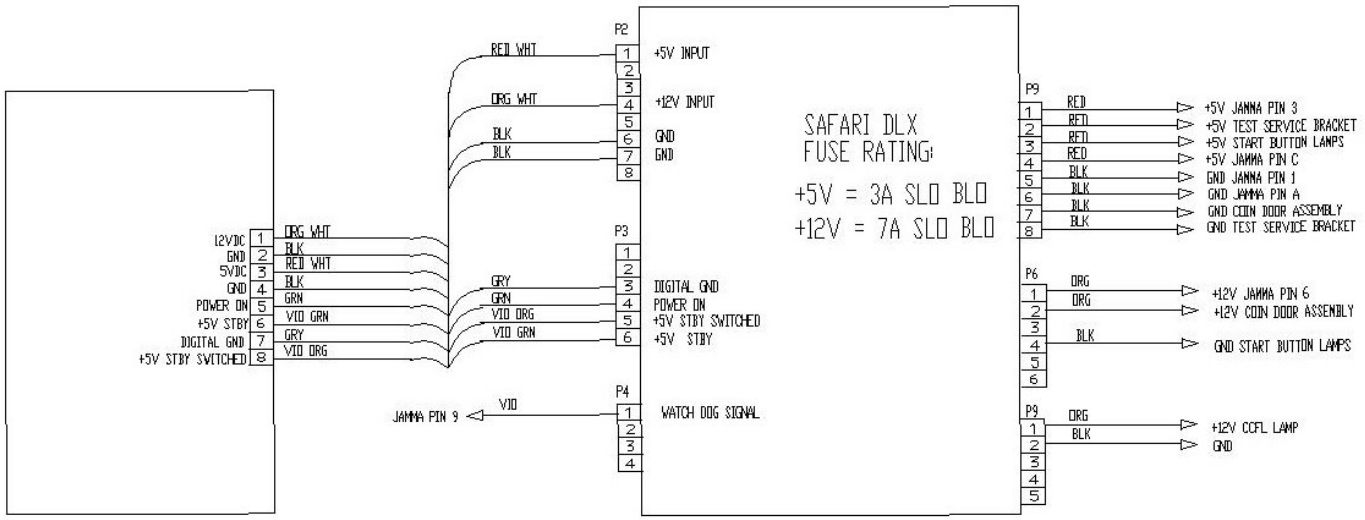
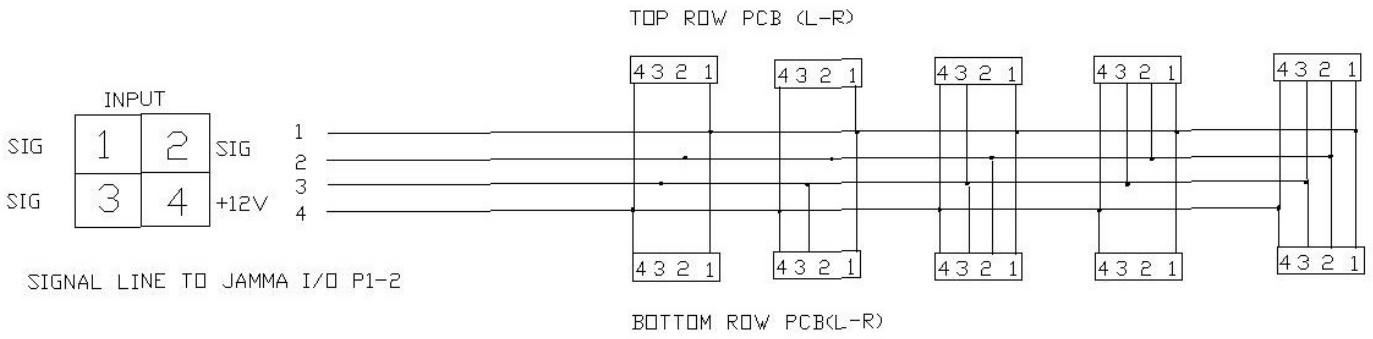
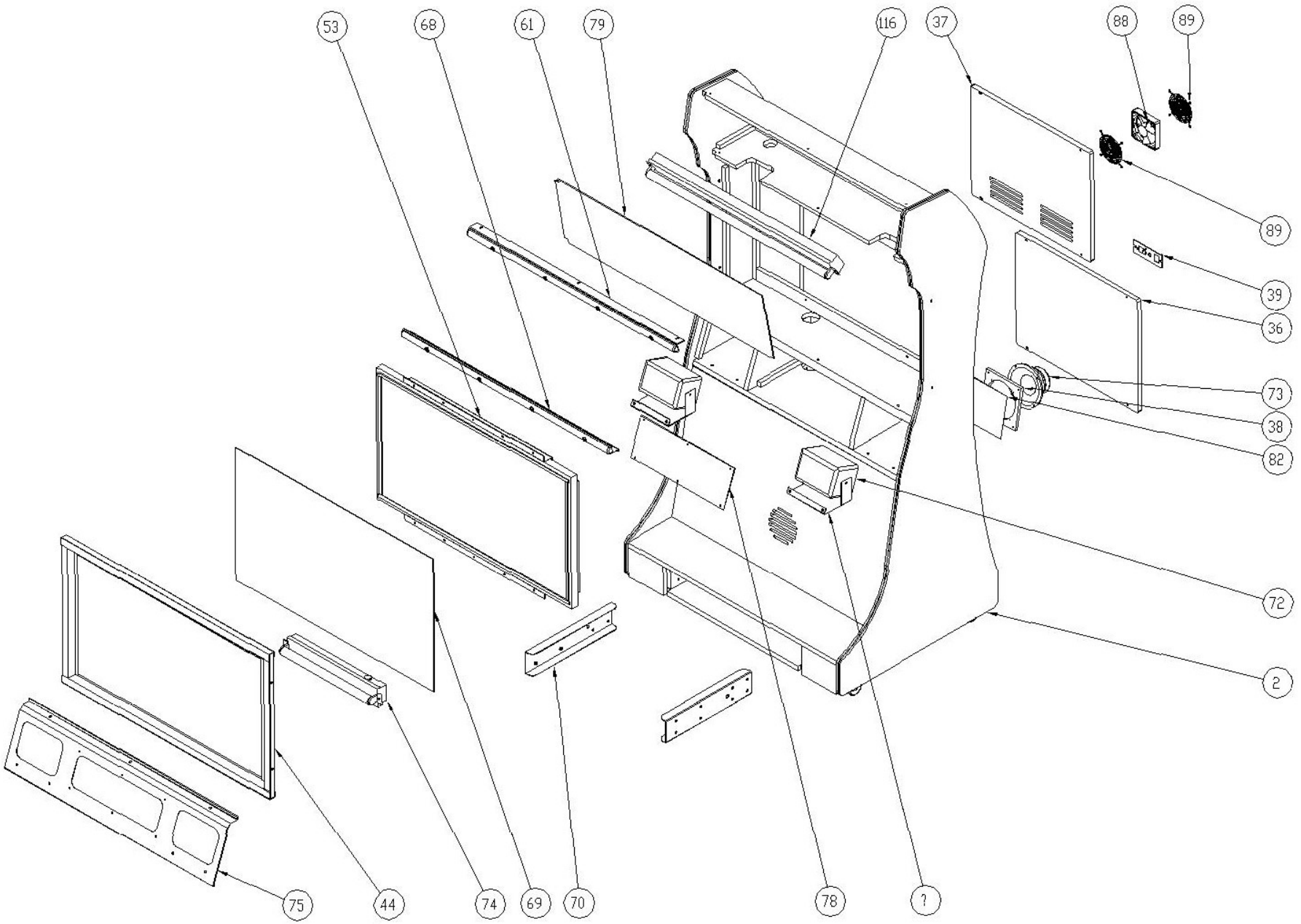
## DELL OPTIPLEX 740 PC

## FUSE/WATCHDOG PCB




## IR LED PCB WIRE DIAGRAM

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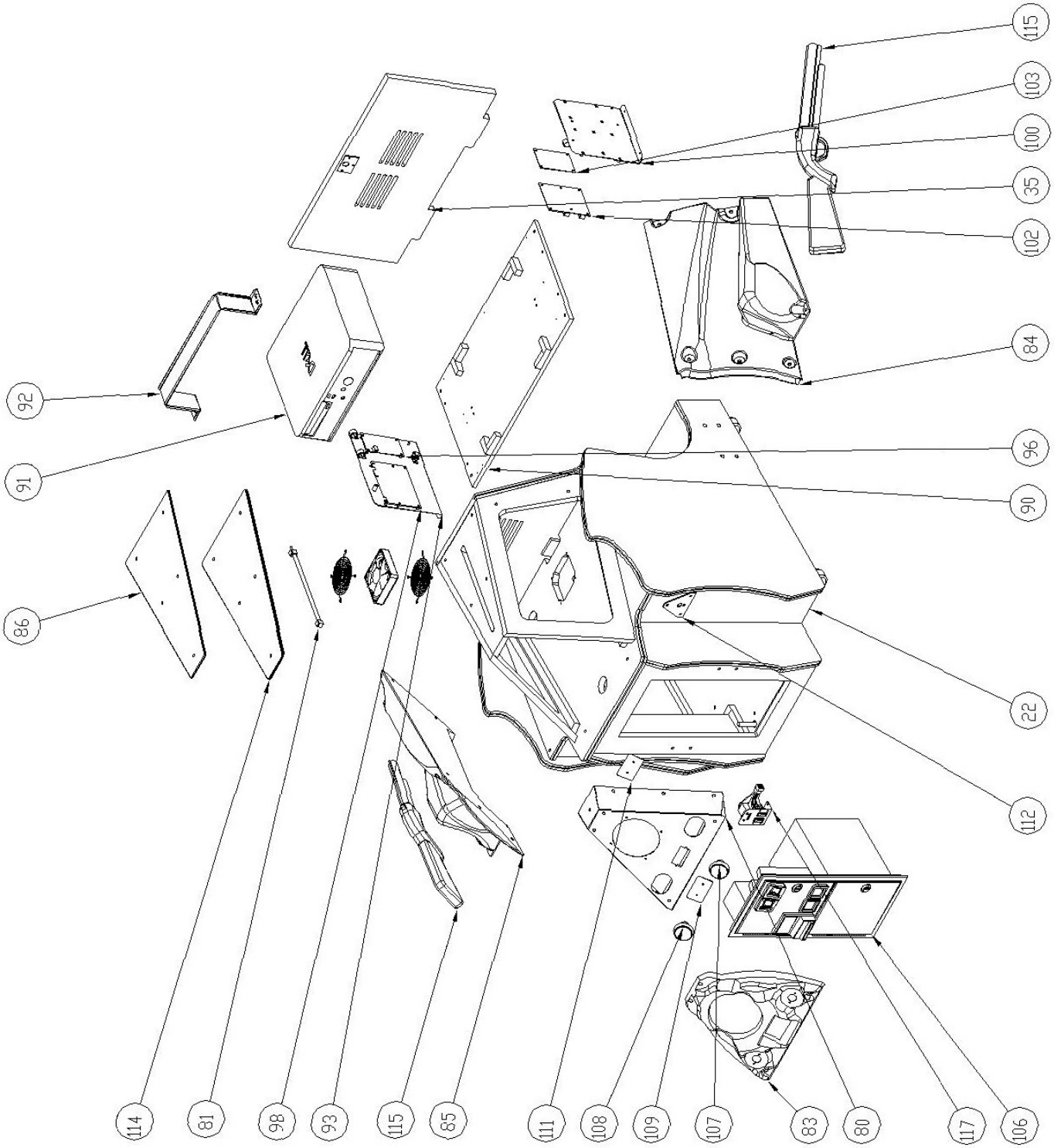
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|---|---|---|
| 35 | 601-00028-01 | Safari Deluxe 42" Pedestal Back Door |
| 36 | 601-00026-01 | Safari Deluxe 42" Lower Back Door |
| 37 | 601-00025-01 | Safari Deluxe 42" Upper Back Door |
| 38 | 600-00075-01 | Sub Woofer Panel |
| 39 | 600-00076-01 | AC Inlet Power Plate (standard) |
| 42 | 600-00071-01 | 42" LCD Display Channel Top/Bottom |
| 44 | 600-00072-01 | 42" LCD Display Channel Sides |
| 59 | 125blackfoamtape38 | |
| 60 | 125blackfoamtape20.5 | |
| 61 | 600-00066-02 | Opto Bracket Top |
| 64 | 500-00020-02 | |
| 67 | 603-00027-02 | LED Board Cover |
| 68 | 600-00067-02 | Opto Bracket Botttom |
| 69 | 600-00073-01 | 42" LCD Display Glass (Tempered) |
| 70 | 600-00030-01 | Pedestal Mounting Channel |
| 71 | 600-00069-01 | 3-Way Speaker Mounting Bracket |
| 72 | speaker_box | |
| 73 | 807-00002-02 | Woofer Speaker, 6.5in 4 ohms |
| 74 | 812-00002-02 | CE Marquee Light - DRIFT |
| 75 | 600-00070-01 | 42" LCD Display Mounting Bracket |
| 77 | Speaker Grill (8.5in X 6.25in) | Speaker Grill (8-1/2" X 6-1/4") |
| 78 | 606-00071-01 | Safari Deluxe 42" Marquee Bottom |
| 79 | 606-00069-01 | Safari Deluxe 42" Marquee Top |
| 80 | 602-00010-00 | |
| 81 | 702-00017-00 | CCFL 3.0X 300MM White Glass Tube (Acrylic Tube 4 pin conn) |
| 82 | Wire Mesh Speaker Woofer (7 x 7) | Wire Mesh Speaker Woofer, 7" X 7" |
| 83 | 603-00028-01 | Safari Control Panel Cover |
| 84 | 603-00016-01right-1 | |
| 85 | 603-00017-01Left-1 | |
| 86 | 606-00070-03 | Safari Deluxe Pedestal Top Panel |
| 87 | 125blackfoamtape0.50 | |
| 88 | 820-00001-00 | Fan, 120vac,19/15W |
| 89 | 800-00001-00 | 120mm Wire Fan Guard |
| 90 | 601-00035-01 | Safari Deluxe PC Shelf |
| 91 | 850-00001-01 | Dell Optiplex 740 |
| 92 | 600-00056-01 | Dell CPU Mounting Bracket |
| 93 | 600-00068-02 | |
| 96 | 500-00012-01 | |
| 98 | 500-00001-02 | Big Buck Safari I/O Board |
| 99 | Cable Clamp_750 | |
| 100 | 600-00074-01 | Dell PC Shelf PCB Mtg Plate (Widget & Amp) |
| 102 | 500-00018-02 | Gun Processing Board - BB Safari |
| 103 | 500-00003-02 | |
| 104 | Richco SS8-6L | |
| 105 | 600-00043-01 | Lock Retainer |
| 106 | 800-00005-01 | Coin Door Assembly Mid Width - BBHP |
| 107 | 702-00008-01 | Orange Round Button Assy |
| 108 | 702-00007-01 | Green Round Button Assy |
| 109 | 602-00008-00 | Card Reader Face Plate |
| 111 | 602-00009-00 | Card Reader Face Plate |
| 112 | Betson 47-4450-XX | Mounting Plate |
| 114 | 606-00073-01 | Top Panel Edge-Glow |
| 115 | bbsgun | |
| 116 | 812-00008-01 | 36" Fluorescent Assy - 120V |
| 117 | 810-00053-01 | Test Service Button Assy |